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ABSTRACT

A national study estimated the short-term impacts of Job Corps (JC) on participants' employment and related outcomes during the 30 months after random assignment. Results for the short-term impact analysis were based on a comparison of eligible program participants randomly assigned to a program group (n=9,409) or a control group (n=5,977) that did not participate in JC. The analysis relied primarily on interview data. Findings indicated most program group participants stayed in JC for a substantial period of time; program group enrollees participated extensively in the core JC activities; differences in subgroups' JC experiences were small; JC substantially increased the education and training that program participants received; similar percentages of program and control group members were enrolled in education and training programs toward the end of the 30-month period; JC participation led to substantial increases in the receipt of General Educational Development and vocational certificates; JC generated positive earnings impact by 2 years after random assignment; and program group members secured higher-paying jobs with slightly more benefits. JC participation reduced receipt of public assistance benefits; significantly reduced arrest and conviction rates; had no impacts on the self-reported use of tobacco, alcohol, and illegal drugs; had no impact on family formation; and had no impact on mobility. (Appendixes include 20 references and supplementary tables.) (YLB)

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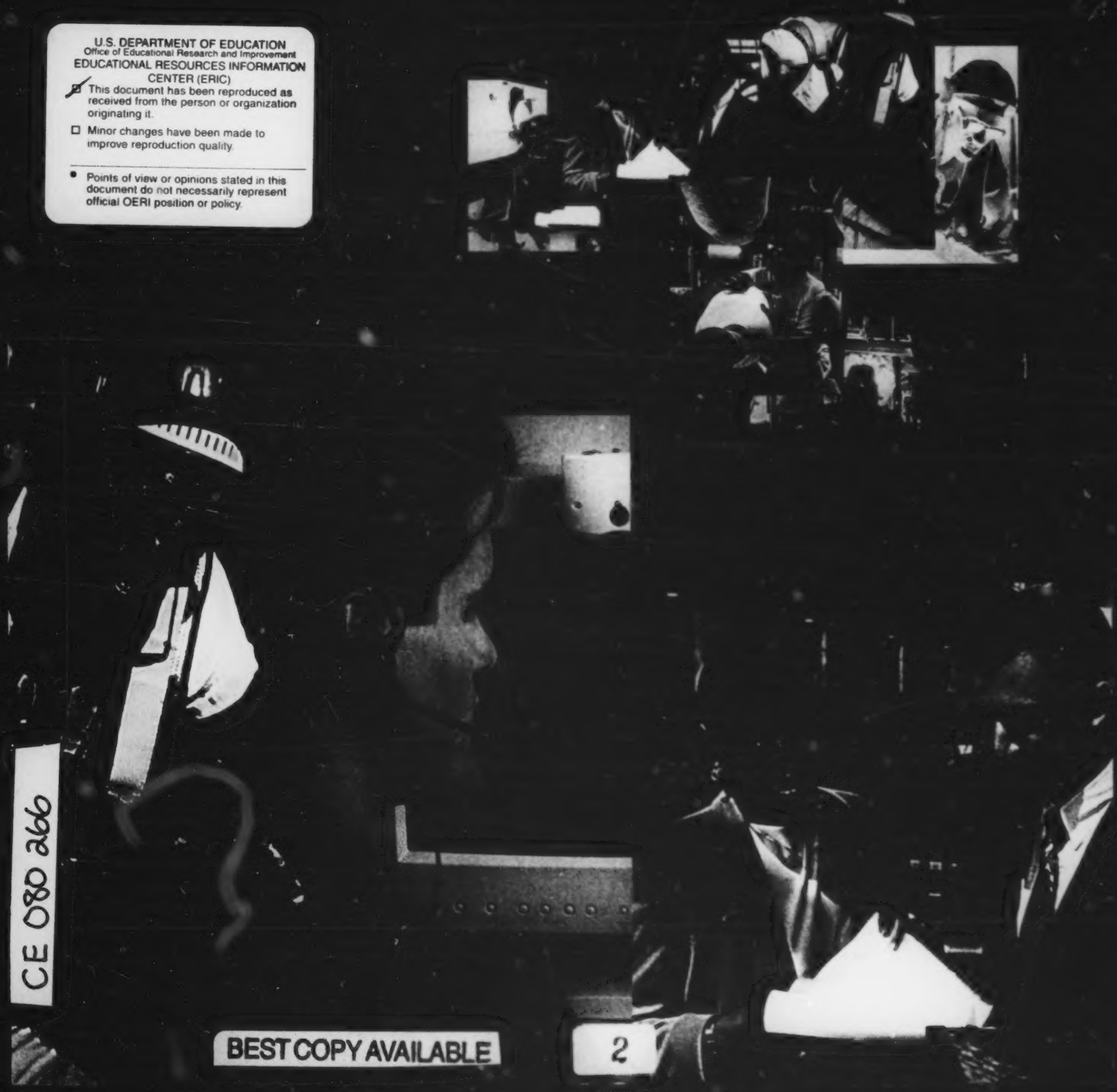

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National Job Corps Study: The Short-Term Impacts of Job Corps on Participants' Employment and Related Outcomes

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Final Report

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ABSTRACT OF FINDINGS

The Job Corps program has long been a central part of federal efforts to provide training for disadvantaged youths. Because of the high costs of the program's intensive services, which are provided mainly in a residential setting, policymakers require information on the effectiveness of Job Corps. This report presents the findings of the National Job Corps Study on short-term impacts of the program on participants' employment and related outcomes.

The cornerstone of the National Job Corps Study was the random assignment of all youths found eligible for Job Corps to either a program group or a control group. Program group members could enroll in Job Corps; control group members could not, but they could enroll in all other programs available to them in their communities. We estimated impacts by comparing the experiences of the program and control groups using data from periodic follow-up interviews. Findings on program impacts over the first two and a half years after random assignment are summarized below. The findings presented here should be interpreted as *short-term* impacts, because the 30-month follow-up period includes a relatively short postenrollment period for some program group members who enrolled in Job Corps. Subsequent reports will analyze program impacts over a four-year period and present a benefit-cost analysis based on the four-year results.

Job Corps provided extensive education, training, and other services to the program group. Follow-up interviews show that 73 percent of the program group enrolled in Job Corps. The average period of participation was eight months. Students received large amounts of academic classroom instruction and vocational skills training. They also participated extensively in the primary Job Corps activities outside the classroom.

Job Corps substantially increased the education and training services that eligible applicants received, and it improved their educational attainment. On average, Job Corps increased the amount of academic classroom instruction and vocational training that participants received (both in and out of Job Corps) by about 1,000 hours, approximately the amount of instruction in a regular 10-month school year. It also provided instruction that was more focused on vocational skills training than was the instruction received elsewhere. Job Corps substantially increased the receipt of GED and vocational certificates, but it had no effect on college attendance.

Job Corps generated positive employment and earnings impacts by the beginning of the third year after random assignment. In the last quarter of the 30-month follow-up period, the gain in average weekly earnings per participant was $18, or 11 percent. Positive impacts near the end of the 30-month follow-up period were found broadly across most subgroups of students. However, the program provided greater gains, at least in the short term, for very young students, females with children, and older youths who did not possess a high school credential at enrollment--all groups at special risk of poor employment and earnings outcomes. Because of the substantial time participants invested in their education and training, their earnings over the entire 30-month period were lower than they would otherwise have been.

The residential and nonresidential programs were each effective for the youths they serve. For those assigned to the residential component, short-term postprogram earnings and employment impacts were positive overall. Impacts were similar for males, females with children, and females without children. For those assigned to the nonresidential component, short-term earnings and employment

impacts were substantial among females with children, but no impacts were evident for females without children or for males. The beneficial impacts for nonresidential females with children suggest that the nonresidential program allows Job Corps to serve a group who could not participate in the residential program because of family responsibilities; it also provides them with higher-than-average earnings gains.

Job Corps significantly reduced youths' involvement with the criminal justice system. The arrest rate was reduced by 22 percent (about 6 percentage points). Reductions in the arrest rates were largest during the first year after random assignment, when most program enrollees were in Job Corps, but continued throughout the two-and-a-half-year follow-up period. Reductions occurred for all categories of crimes, although they were slightly larger for less serious crimes. The impacts on arrest rates were very similar across subgroups. Job Corps participation also reduced convictions and incarcerations resulting from a conviction by more than 20 percent.

Job Corps had small beneficial impacts on the receipt of public assistance and on self-assessed health status, but it had no impacts on illegal drug use, family formation, or mobility. Overall, program group members reported receiving about $300 less in benefits (across several public assistance programs) than control group members. Program group members were slightly less likely than control group members to report their health as "poor" or "fair"--15 percent, compared to 18 percent. There were no differences in the reported use of alcohol and illegal drugs or in the use of drug treatment services. Likewise, participation in Job Corps had no impacts on living with a partner, having a child, or the likelihood of living with or providing support for a child. Reflecting the fact that most students returned to their home communities, Job Corps had no short-term effect on mobility or the characteristics of the places in which the youths lived.

The positive impacts for 16- and 17-year-old youth are striking: (1) earnings gains per participant were nearly 20 percent by the end of the follow-up period, (2) the percentage earning a high school diploma or GED was up by 80 percent, and (3) arrest rates were reduced by 14 percent and rates of incarceration for a conviction by 26 percent. While staff find this group difficult to deal with, and while more of them leave Job Corps before completing their education and training than is the case with older students, the youngest age group appears to benefit substantially from their program experiences soon after they leave the program. It will be especially important to observe the time trajectory of the impacts for this group over a longer period.

Longer-term followup will be critical for drawing policy conclusions about the impacts and cost-effectiveness of Job Corps. The impacts on earnings that we observe starting in the third year after random assignment are similar to what one would expect from participation in an intensive education and training program that led to the equivalent of one additional year of schooling. The best current estimates place the average lifetime returns to an additional year of schooling in the range of five to eight percent. The short-term earnings gains from Job Corps are approximately 11 percent over a very brief postprogram period. Observing whether these gains persist, increase, or decrease over a longer follow-up period will be critical for forming a judgment about whether Job Corps is a good investment for students and for the public.

EXECUTIVE SUMMARY

Since 1964, the Job Corps program has been a central part of federal efforts to provide employment assistance to disadvantaged youths between the ages of 16 and 24. Job Corps is an intensive, comprehensive program whose major service components include academic education, vocational training, residential living, health care and health education, counseling, and job placement assistance. These services are currently delivered at 119 Job Corps centers nationwide. Most Job Corps students reside at Job Corps centers while training, although about 12 percent are nonresidential students who live at home. Each year, Job Corps serves more than 60,000 new enrollees and costs more than $1 billion.

The National Job Corps Study, funded by the U.S. Department of Labor (DOL), was designed to provide a thorough and rigorous assessment of the impacts of Job Corps on key participant outcomes. The cornerstone of the study was the random assignment of all youth found eligible for Job Corps to either a program group or a control group. Program group members were allowed to enroll in Job Corps; control group members were not (although they could enroll in other training or education programs).

This report presents estimates of the short-term impacts of Job Corps on participants' employment and related outcomes during the 30 months after random assignment. The outcome measures for the analysis were obtained from interview data.

The report answers the following three research questions:

1. ***How effective is Job Corps overall at improving the employability of disadvantaged participants in the short term?*** Job Corps participation led to (1) increases of about 1,000 hours (or about one school year) in time spent in education and training; (2) substantial increases in the attainment of GED and vocational certificates; (3) modest short-term earnings gains by the beginning of the third year after random assignment (resulting in an 11 percent gain in the last quarter of the 30-month period); (4) reductions of about 20 percent in arrests, convictions, and incarcerations for convictions; (5) small beneficial impacts on the receipt of public assistance and self-assessed health status; and (6) no impacts on self-reported alcohol and illegal drug use, family formation, or mobility.

2. ***Do Job Corps short-term impacts differ for youths with different characteristics?*** Positive short-term gains were found broadly across most key subgroups defined by youth characteristics at baseline. However, there is some evidence that impacts were somewhat larger for youths who are at particular risk of poor labor market outcomes: very young students, females with children at random assignment, and older youths who did not possess a high school credential at random assignment.

3. ***How effective are the residential and nonresidential components of Job Corps in the short term?*** The residential program component was effective in the short term for broad groups of students. Earnings and employment impacts late in the follow-up period for those assigned to the residential component were positive overall, and they were similar for residential males, females with children, and females without children. The nonresidential component substantially improved short-term employment and earnings of females with children, but it did not improve these outcomes for males or for females without children.

The findings presented here should be interpreted as *short-term* program impacts, because the 30-month follow-up period includes a relatively short postenrollment period for some program group members who enrolled in Job Corps. Program group participants reported staying in Job Corps for an average of about eight months, and over one-quarter reported staying for more than one year. Estimates of longer-term impacts based on 48-month follow-up interviews will be presented in a future report. A benefit-cost analysis to assess whether the benefits of Job Corps are commensurate with the substantial public resources invested in it will also be conducted using the 48-month interview data.

STUDY DESIGN

The results for the short-term impact analysis are based on a comparison of eligible program applicants who were randomly assigned to a program group (who were offered the chance to enroll in Job Corps) or to a control group (who were not). The key features of this experimental design are as follows:

The impact evaluation is based on a fully national sample of eligible Job Corps applicants. With a few exceptions, the members of the program and control groups were randomly selected from *all* youths who applied to Job Corps in the contiguous 48 states and the District of Columbia and who were found eligible for the program.

Sample intake occurred between November 1994 and February 1996. All youths who applied to Job Corps for the first time between November 1994 and December 1995, and were found eligible for the program by the end of February 1996 were included in the study--a total of 80,883 eligible applicants.

During the sample intake period, 5,977 Job Corps-eligible applicants were randomly selected to the control group. Approximately 1 eligible applicant in 14 (7 percent of 80,883 eligible applicants) was assigned to the control group. For both programmatic and research reasons, the sampling rate to the control group differed somewhat across some youth subgroups. Thus, sample weights were used in all analyses, so that the impact estimates could be generalized to the intended study population.

Control group members were not permitted to enroll in Job Corps for a period of three years, although they were able to enroll in other programs available to them. Thus, the outcomes of the control group represent the outcomes that the program group would have experienced if they had not been given the opportunity to enroll in Job Corps. Because control group members were allowed to enroll in other education and training programs, the comparisons of program and control group outcomes represent the effects of Job Corps *relative to other available programs* that the study population would enroll in if Job Corps were not an option. The impact estimates do not represent the effect of the program relative to no education or training; instead, they represent the incremental effect of Job Corps.

During the sample intake period, 9,409 eligible applicants were randomly selected to the research sample as members of the program group.[1] Because random assignment occurred after youths were determined eligible for Job Corps (and *not* after they enrolled in Job Corps centers), the program group includes youths who enrolled in Job Corps (about 73 percent of eligible applicants), as well as those who did not enroll, the so-called "no-shows" (about 27 percent of eligible applicants). Although the study's research interest focuses on enrollees, all youths who were randomly assigned, including those who did not enroll at a center, were included in the analysis to preserve the benefits of the random assignment design. However, as discussed below, statistical procedures were also used to estimate impacts for Job Corps participants only.

Job Corps staff implemented random assignment procedures well. Using program data on all new center enrollees, we estimate that less than 0.6 percent of youths in the study population were not randomly assigned. In addition, only 1.4 percent of control group members enrolled in Job Corps before the end of the three-year period during which they were not supposed to enroll. Hence, we believe that the research sample is representative of the youths in the intended study population and that the bias in the impact estimates due to contamination of the control group is very small.

DATA SOURCES, OUTCOME MEASURES, AND ANALYTIC METHODS

The impact analysis used a variety of data sources, outcome measures, and analytic methods to address the main study questions, as outlined next.

The analysis relied primarily on interview data covering the 30-month period after random assignment. Follow-up interview data collected 12 and 30 months after random assignment were used to construct outcome measures for the impact analysis. In addition, baseline interview data, collected soon after random assignment, were used to create subgroups defined by youth characteristics at random assignment, and to construct outcome measures that pertain to the period between the random assignment and baseline interview dates.

Response rates to the baseline, 12-month, and 30-month interviews were fairly high and were similar for program and control group members. The response rate was 95 percent to the baseline interview, 90 percent to the 12-month follow-up interview, and 79 percent to the 30-month interview. Response rates were similar across key subgroups.

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[1] The remaining 65,497 eligible applicants were randomly assigned to a program nonresearch group. These youths were allowed to enroll in Job Corps but are not in the research sample.

The primary sample used for the analysis includes those who completed 30-month interviews. This sample contains 11,787 youths (7,311 program group members and 4,476 control group members). About 96 percent of this sample also completed 12-month interviews. Furthermore, baseline interview data are available for everyone in this sample, because all youths completed either the full baseline interview or an abbreviated baseline interview in conjunction with the 12-month interview. Thus, complete data are available for most of the analysis sample.

The study estimated impacts on the following outcome measures that we hypothesized could be influenced by participation in Job Corps: (1) education and training, (2) employment and earnings, and (3) nonlabor market outcomes. The nonlabor market outcomes include welfare, crime, alcohol and illegal drug use, health, family formation, and mobility. In general, outcome measures were defined over several periods after random assignment. We constructed measures by quarter (to examine changes in impact estimates over time), for months 1 to 12 (a period when many program group members were enrolled in Job Corps), for months 13 to 24 (a period of still significant but less intensive Job Corps participation), for months 25 to 30 (a postprogram period for most program group members), and for the entire 30-month period.

We present estimates of Job Corps impacts per eligible applicant and per Job Corps participant. The estimates of Job Corps impacts *per eligible applicant* were obtained by computing differences in the distribution of outcomes between all program and control group members. This approach yields unbiased estimates of the effect of Job Corps for those offered the opportunity to enroll in the program. These impacts are pure experimental estimates, because random assignment was performed at the point that applicants were determined to be eligible for the program.

The comparison of the outcomes of all program and control group members yields *combined* impact estimates for the 73 percent of program group members who enrolled in Job Corps centers and the 27 percent who did not. Policymakers, however, are more concerned with the effect of Job Corps on those who enrolled in a center and received Job Corps services. This analysis is complicated by the fact that we do not know which control group members would have shown up at a center had they been in the program group. However, this complication can be overcome if we assume that Job Corps has no impact on eligible applicants who do not enroll in centers. In this case, the impact *per participant* can be obtained by dividing the impact *per eligible applicant* by the proportion of program group members who enrolled in Job Corps (73 percent). We present estimated impacts both per eligible applicant and per participant.

Impact estimates were obtained for key subgroups defined by youth characteristics at baseline. The purpose of this subgroup analysis was to identify groups of Job Corps students who benefit from program participation and those who do not, so that policymakers can improve program services and target them appropriately. We estimated impacts of Job Corps on the following seven sets of subgroups: (1) gender, (2) age at application to Job Corps, (3) educational attainment, (4) presence of children for females, (5) arrest experience, (6) race and ethnicity, and (7) whether the youth applied to the program before or after new zero tolerance (ZT) policies took effect.[2] Subgroup impact estimates were obtained by comparing the distribution of outcomes of program and control group members in that subgroup. For example, impacts for females were computed by comparing the outcomes of females in the program and control groups.

We estimated separate impacts for those assigned to the residential and nonresidential program components. These impacts were estimated using data on outreach and admission (OA) counselor predictions as to whether sample members would be assigned to a residential or a nonresidential slot. As part of the application process, OA counselors filled in this information on a special form developed for the study. The anticipated residential status information is available for both program *and* control group members, because it was collected prior to random assignment. Thus, the impacts of the residential component were estimated by comparing the distribution of outcomes of program group members designated for a residential slot with those of control group members designated for a residential slot. Similarly, the impacts of the nonresidential component were estimated by comparing the experiences of program and control group members designated for nonresidential slots. This analysis produced reliable estimates of program impacts for residential and nonresidential students, because the anticipated residential status information is available for all sample members, and because it matched actual residential status very closely for program group members who enrolled in Job Corps.

An important point about the interpretation of the impact findings for residents is that they tell us about the effectiveness of the residential component *for youths who are typically assigned to residential slots*. Similarly, the impact estimates for nonresidents tell us about the effectiveness of the nonresidential component *for youths who are typically assigned to nonresidential slots*. The results cannot necessarily be used to measure the effectiveness of each component for the *average* Job Corps student. Nor can the results be used to assess how a youth in one component would fare in the other one.

JOB CORPS EXPERIENCES

Job Corps staff have implemented a well-developed program model throughout the country (as described in a separate process analysis report by Johnson et al. [1999]). To understand the impacts that Job Corps had on the employment and related outcomes of participants, we must examine the Job Corps experiences of the program group. We can expect meaningful Job Corps impacts on key outcomes only if program group members received substantial amounts of Job Corps services. Thus, we examined whether program group members received services, and then gauged the intensity and types of those services.

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[2] In response to congressional concerns about the operation of the Job Corps program, and in particular, about safety on center, new ZT policies for violence and drugs were instituted in March 1995--during the sample intake period for the study. The new policies were instituted to ensure full and consistent implementation of existing policies for violence and drugs.

Our results, which indicate that program group members received extensive Job Corps services, can be summarized as follows:

Most program group members enrolled in Job Corps. Of those assigned to the program group, 73 percent reported enrolling in Job Corps within 30 months.

Participants typically enrolled very soon after random assignment. The average enrollee waited 1.5 months, or just over six weeks, to be enrolled in a Job Corps center, although two-thirds of those who enrolled did so in the first month, and only 4 percent enrolled more than six months after random assignment.

Most participants stayed in Job Corps for a substantial period of time, although the period of participation varied considerably. The average period of participation per enrollee was eight months. About 28 percent of all enrollees participated less than three months, and nearly a quarter participated for over a year. Because of this wide range in the duration of stay in Job Corps, participants left Job Corps at different points during the follow-up period.

Wide variations in the duration of participation in Job Corps resulted in a correspondingly wide distribution in how much of the 30-month follow-up period was actually a postprogram period. The average postprogram period for enrollees was 20 months. However, just over 15 percent of enrollees were out of Job Corps for less than one year, and almost 40 percent of enrollees were out for more than two years. Because enrollees varied so much in the amount of time observed after Job Corps, and because a substantial fraction had a short postprogram observation period, the 30-month employment and earnings results described later in this report should be interpreted as short-term impacts.

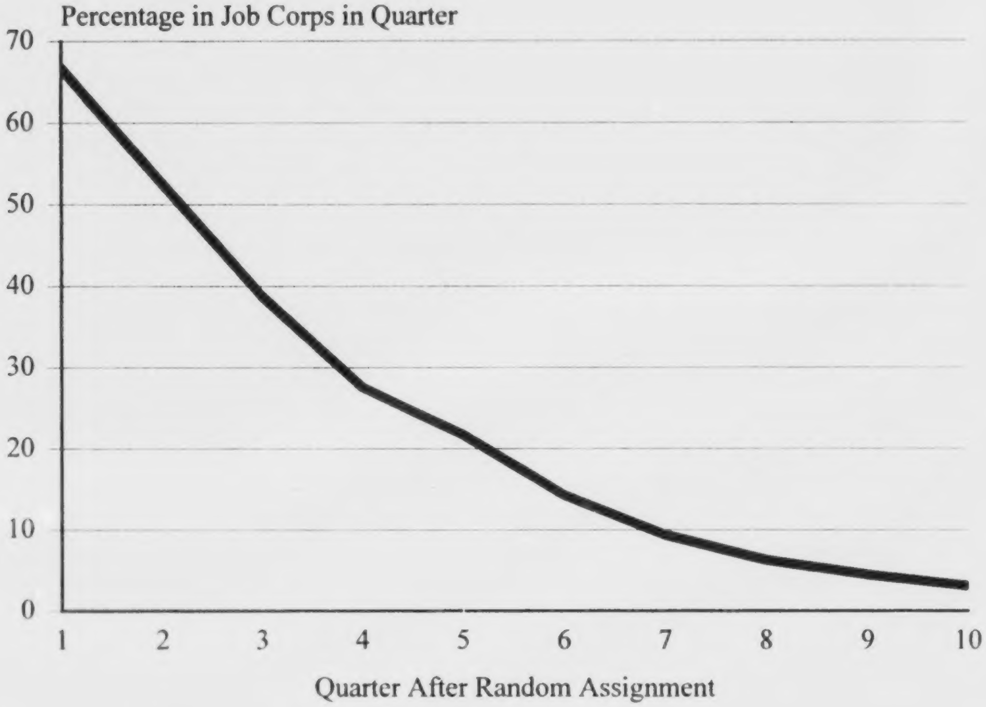
Most participation occurred during the first 24 months after random assignment; the final six months of the 30-month period was a postprogram period for most participants (Figure 1). Figure 1 shows the fraction of program group members (including the no-shows) who participated in Job Corps during each quarter after random assignment. The participation rate declined from a peak of 67 percent in the first quarter after random assignment to 22 percent in the fifth quarter (beginning of the second year), and 5 percent in the ninth quarter (beginning of the third year). By the end of the 30-month period, almost all participants had left Job Corps. Only 2 percent of the program group (3 percent of enrollees) were in Job Corps in the final week of the 30-month follow-up period.

Based on these broad patterns of participation, we interpret the period from quarters 1 to 4 (months 1 to 12) as largely an "in-program" period. The period from quarters 5 to 8 (months 13 to 24) was a period of transition, in which smaller yet still substantial fractions of the program group were engaged in Job Corps training. The final two quarters (months 25 to 30) were a postprogram period for most students. The use of these in-program, transition, and postprogram periods provides a framework to help understand the time profiles of employment and earnings and related impacts.

Program group enrollees participated extensively in the core Job Corps activities. As the program design intends, a large majority of Job Corps participants (77 percent) received both academic instruction and vocational training. About 83 percent of enrollees reported receiving

FIGURE 1

JOB CORPS PARTICIPATION RATES FOR THE FULL PROGRAM GROUP, BY QUARTER



Source: 12-month and 30-month follow-up interviews.

academic instruction, and 89 percent received vocational training. The average enrollee reported receiving over 1,000 hours of academic and vocational instruction (which is approximately equivalent to one year of classroom instruction in high school). Also, most enrollees participated in the many socialization activities in Job Corps, such as parenting education, health education, social skills, training, and cultural awareness classes. Many enrollees, however, reported that they did not receive job placement assistance from the program.

While many subgroups had different experiences in Job Corps, the differences were small. The mix of academic and vocational training a student received depended on whether the youth had already received a high school credential (GED or diploma) before program entry. Students with no credential generally took both academic instruction and vocational training. High school graduates were more likely to focus on vocational training. Nonresidential students (especially females with children) had somewhat lower enrollment rates than residential students. Once in Job Corps, however, the residential and nonresidential students had similar amounts, types, and intensity of training, as well as similar exposure to the other program components. The many other subgroup differences were small, and overall each group's experience was consistent with the conclusions drawn above for the program group as a whole. However, the modest differences in the period of participation across different subgroups may have contributed to some of the differences in impacts for subgroups presented later in this report.

EDUCATION AND TRAINING

Job Corps provides intensive academic classroom instruction and vocational skills training to increase the productivity and, hence, the future earnings, of program participants. The typical Job Corps student stays in the program for an extended period (about eight months on average), and Job Corps serves primarily students without a high school credential (about 80 percent of students do not have a GED or high school diploma at program entry). Thus, it is likely that participation in Job Corps increases the amount of education and training participants receive and improves their educational levels relative to what they would have been otherwise.

An important part of the impact analysis is to describe the education and training experiences of program and control group members, and to provide estimates of the impact of Job Corps on key education and training outcomes during the 30 months after random assignment. We examine education and training experiences of the ***program group***, both in Job Corps and elsewhere, to provide a complete picture of the services they received. The education and training experiences of the *control group* are the counterfactual for the study, showing what education and training the program group would have engaged in had Job Corps not been available. The net increase in education and training due to Job Corps depends critically on what education and training the control group received and what education and training the program group received from other sources, as well as from Job Corps.

Our main findings can be summarized as follows:

Many control group members received substantial amounts of education and training. More than 64 percent participated in an education or training program during the 30 months after random assignment. On average, they received 637 hours of education and training, roughly equivalent to about half a year of high school. Participation rates were highest in programs that substitute for Job Corps: GED programs (35 percent), high school (31 percent), and vocational, technical, or trade schools (21 percent).[3] These high participation rates are not surprising, because control group members demonstrated motivation to go to Job Corps, and thus had the motivation to find other programs.

It is notable that although high school participation rates were high, those who returned to high school stayed there for an average of only about nine months. Because the typical sample member without a high school credential at random assignment had completed less than grade 10, very few control group members graduated from high school.

Job Corps substantially increased the education and training that program participants received, despite the activity of the control group (Tables 1 and 2). Nearly 90 percent of the program group engaged in some education or training, compared to about 64 percent of the control group (an impact of 25 percentage points per eligible applicant). Job Corps participants spent about 7.7 hours per week--1,001 hours in total--more in programs than they would have if they had not enrolled in the program. This impact per participant corresponds to *roughly one school year*.

The program group also spent significantly more time in academic classes, and even more in vocational training (Table 2). Program group members spent an average of 4.6 hours per week in academic classes, as compared to 3.6 hours per week for the control group. The program group typically received about four times more vocational training than the control group (4.5 hours per week, compared to 1 hour per week).

The impacts on participation in education and training programs were concentrated in the first six quarters (that is, 18 months) after random assignment (Figure 2). Impacts were large during this period, because many program group members were enrolled in Job Corps then, but decreased as program group members started leaving Job Corps. About 76 percent of program group members were ever enrolled in an education or training program (including Job Corps and other programs) during the first quarter after random assignment, compared to 29 percent of control group members--an impact per eligible applicant of 47 percentage points. The impact on the participation rate decreased to 22 percentage points in quarter 3 and 11 percentage points in quarter 5. The impact was about 3.5 percentage points in quarter 7 and was not statistically significant in quarters 9 and 10.

Similar percentages of program and control group members were enrolled in education and training programs toward the end of the 30-month period. For example, about 16 percent of both research groups were enrolled in a program during the last week of the 30-month follow-up period. This finding is important, because it suggests that impacts on employment and earnings late in the 30-month period were not affected by differences in school enrollment rates by research status.

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[3] The participation rates in GED programs and high school pertain to those who did not have a GED or high school diploma at random assignment.

TABLE 1

IMPACTS ON PARTICIPATION AND TIME SPENT IN EDUCATION AND TRAINING PROGRAMS

	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Estimated Impact per Participant[b]
Percentage Ever Enrolled in an Education or Training Program During the 30 Months After Random Assignment	89.7	64.4	25.4*	34.8*
Average Percentage of Weeks Ever in Education or Training	31.7	20.8	10.9*	14.9*
Average Hours per Week Ever in Education or Training	10.6	4.9	5.6*	7.7*
Sample Size	**7,311**	**4,476**	**11,787**	

SOURCE: 12- and 30-month follow-up interview data.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps.

*Significantly different from zero at the .05 level, two-tailed test.

TABLE 2

IMPACTS ON PARTICIPATION AND TIME SPENT IN ACADEMIC CLASSES AND VOCATIONAL TRAINING

	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Estimated Impact per Participant[b]
Percentage Ever Took Academic Classes During the 30 Months After Random Assignment	79.5	54.6	24.9*	34.1*
Average Hours per Week Ever in Academic Classes	4.6	3.6	1.0*	1.4*
Percentage Ever Took Vocational Training	71.5	20.9	50.6*	69.4*
Average Hours per Week Ever Received Vocational Training	4.5	1.0	3.5*	4.8*
Sample Size[c]	**3,262**	**2,039**	**5,301**	

SOURCE: 12- and 30-month follow-up interview data.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

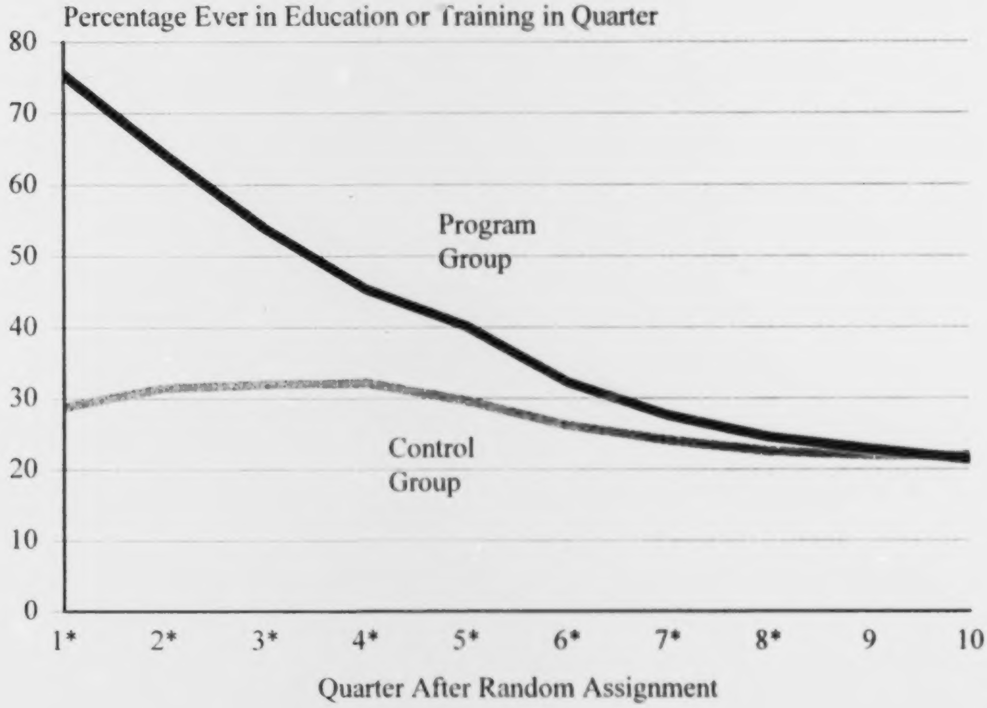
[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps.

[c] The sample consists of only those whose 30-month interview took place after April 1998, because of an error in the 30-month interview's skip logic before then.

*Significantly different from zero at the .05 level, two-tailed test.

FIGURE 2

PARTICIPATION RATES IN EDUCATION AND TRAINING PROGRAMS, BY QUARTER



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

Control group members spent more time than program group members in programs other than Job Corps, although the differences were smaller than anticipated (Figure 3). About 64 percent of control group members enrolled in a program other than Job Corps during the 30-month period, compared to 54 percent of program group members. The differences in participation rates in programs that substitute for Job Corps (high school, GED programs, vocational schools, and ABE and ESL programs) are statistically significant. There were no differences in enrollment rates in two- or four-year colleges.[4]

While impacts on participation in alternative programs are statistically significant, they were smaller than expected. Program group members made considerable use of these same programs, which increased impacts on education and training and reduced the offset to Job Corps program costs.

Job Corps participation led to substantial increases in the receipt of GED and vocational certificates, but it led to slight reductions in the attainment of a high school diploma (Figure 4). Job Corps had large effects on the receipt of certificates that it emphasizes. Among those without a high school credential at random assignment, about 35 percent of program group members (and 40 percent of program group participants) obtained a GED during the 30-month period, compared to only 17 percent of control group members (an impact of 18 percentage points per eligible applicant). Similarly, about 28 percent of program group members (and 35 percent of Job Corps participants) reported receiving a vocational certificate, compared to about 8 percent of control group members (an impact of 20 percentage points).

Among those without a credential at baseline, a slightly higher percentage of control group members than program group members obtained a high school diploma (5.8 percent, compared to 4.3 percent). As noted above, although many of the younger control group members attended high school, most of those in high school did not complete it, because they attended high school for an average of only about nine months.

At 30 months after random assignment, college attendance and completion had not been affected (Figures 3 and 4). About 9 percent of each research group attended a two-year college, and about 2 percent attended a four-year college. Less than 1 percent obtained a two- or four-year college degree.

Impacts on education and training were large across all subgroups defined by youth characteristics. Impacts on total time spent in programs and on the attainment of a GED (among those without a high school credential at baseline) or vocational certificate were very large and statistically significant for all key subgroups. However, the pattern of impacts across subgroups defined by age at application to Job Corps exhibited some differences. There were no impacts on

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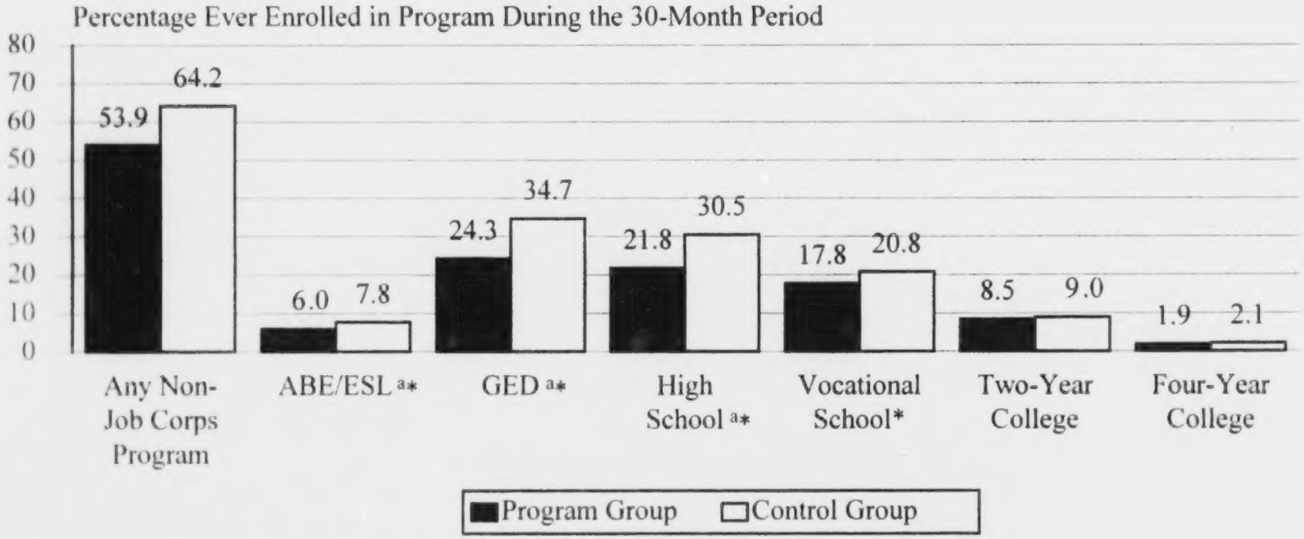
[4] About 18 percent of Job Corps participants attended an education or training program during the follow-up period before they enrolled in Job Corps (that is, between their random assignment and Job Corps enrollment dates). Not surprisingly, most of this activity was high school attendance. About 40 percent of Job Corps participants enrolled in an education or training program after leaving Job Corps. About 62 percent of the no-shows enrolled in a program during the 30-month period.

FIGURE 3

PARTICIPATION IN EDUCATION AND TRAINING PROGRAMS, BY TYPE OF PROGRAM



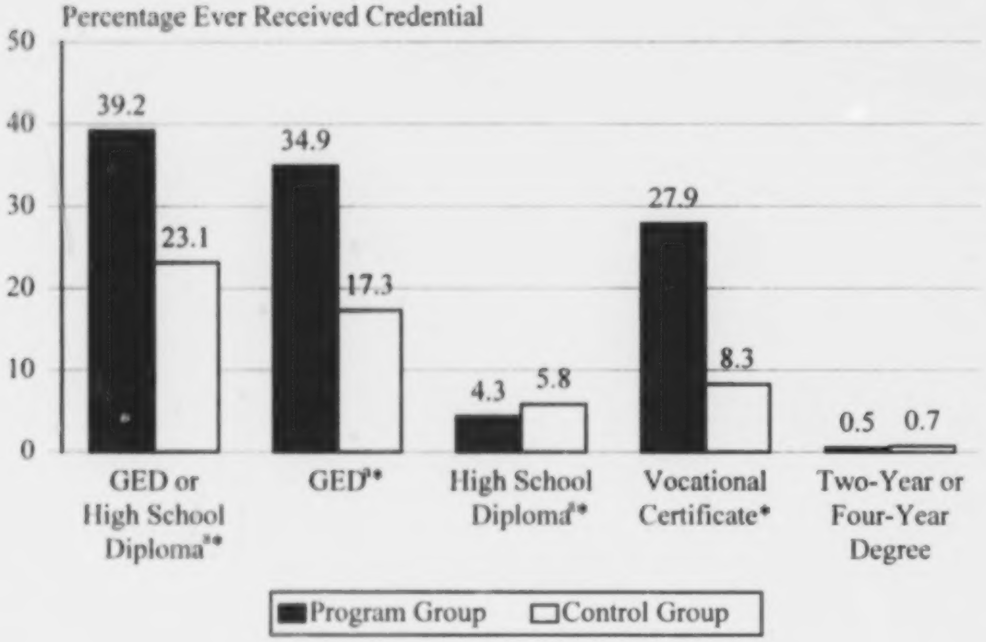
Source: Baseline, 12-month, and 30-month follow-up interviews.

[a] Figures pertain to those who did not have a high school diploma or GED at random assignment.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

FIGURE 4

DEGREES, DIPLOMAS, AND CERTIFICATES RECEIVED



Source: Baseline, 12-Month, and 30-Month Follow-up Interviews.

[a] Figures pertain to those who did not have a high school credential at random assignment.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

hours in academic classes for those 16 and 17, because nearly half of all control group members who were 16 and 17 attended academic classes in high school. However, large impacts were found on hours spent in academic classes for the older youth, and on hours spent in vocational training for all age groups.

Of particular note, impacts were similar for those assigned to the residential and nonresidential components. This is consistent with findings from the process analysis (Johnson et al. 1999) that nonresidential students are fully integrated into the academic and vocational components of Job Corps.

EMPLOYMENT AND EARNINGS

We have seen that Job Corps participation leads to large impacts on time spent in academic classes and vocational training and on the attainment of GED and vocational certificates. These large impacts could increase participants' skill levels and, hence, their labor market productivity. This increased productivity may in turn enhance the time spent employed, earnings, wage rates, and fringe benefits of former participants.

We expect negative impacts on participants' employment and earnings during the period of enrollment, because some would have held jobs if they had not gone to Job Corps. However, because of improvements in participants' skills, we expect positive impacts on employment and earnings after they leave the program and after a period of readjustment. In light of the variation in the duration of program participation and the period of readjustment, it is difficult to predict when positive impacts will emerge.

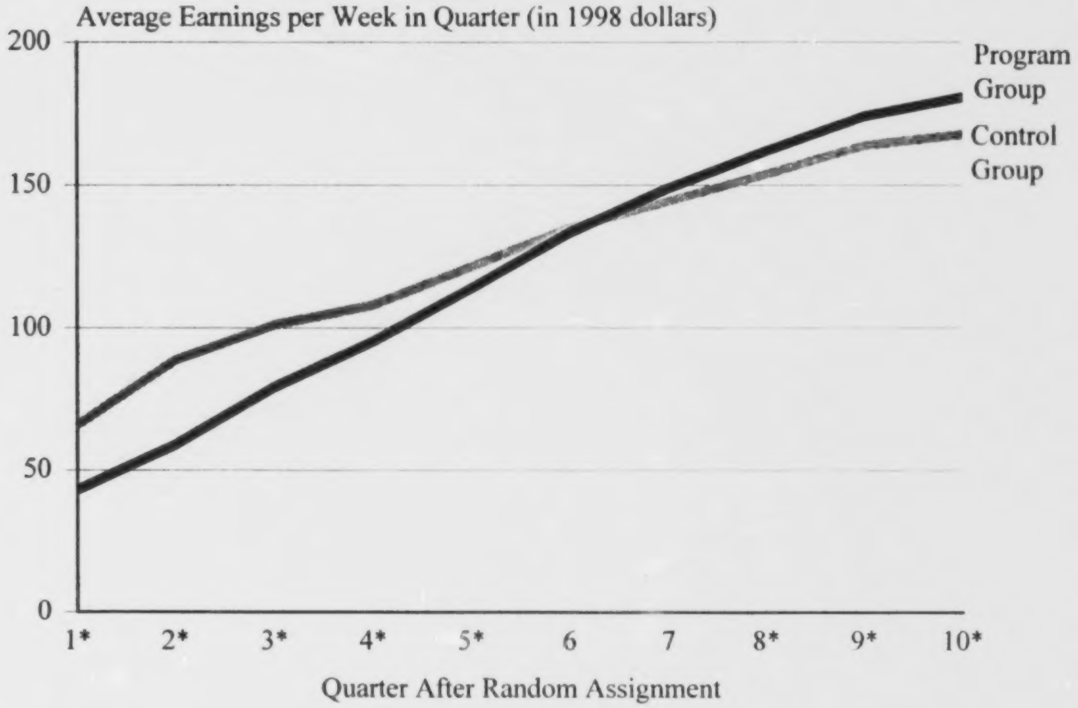
A summary of our findings is as follows:

Job Corps generated positive earnings impacts by two years after random assignment (Figure 5 and Table 3). As expected, the earnings of the control group were larger than those of the program group early in the follow-up period, because many program group members were enrolled in Job Corps then. It took about two years from random assignment for the earnings of the program group to overtake those of the control group. By the tenth quarter (that is, months 28 to 30) after random assignment, average weekly earnings for program group members were $13 higher than for control group members ($181, compared to $168). The estimated impact per Job Corps *participant* was $18, which translates into an 11 percent gain in average weekly earnings due to program participation. These quarter 10 impacts are statistically significant at the 1 percent significance level. In addition, the positive earnings impacts were increasing slightly during the later months of the 30-month observation period (that is, between quarters 8 and 10).

The earnings gains of participants that emerged after 24 months were not large enough to offset earnings losses while they were in the program. Over the whole period, Job Corps participants earned about $10 per week (or $1,300 overall) less than they would have if they had not enrolled in Job Corps. This impact is statistically significant and translates into an 8 percent reduction in earnings for the average participant over the first two and a half years after being determined eligible for Job Corps.

FIGURE 5

AVERAGE EARNINGS PER WEEK, BY QUARTER



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

TABLE 3

IMPACTS ON EARNINGS, EMPLOYMENT RATES, AND TIME EMPLOYED IN QUARTERS 8 TO 10

	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Estimated Impact per Participant[b]
Average Earnings per Week, by Quarter After Random Assignment				
8	161.9	153.9	8.0*	10.9*
9	174.1	163.8	10.3*	14.1*
10	180.6	167.7	12.9*	17.7*
Percentage Employed, by Quarter				
8	59.9	58.4	1.6*	2.1*
9	63.8	62.4	1.4	2.0
10	66.9	64.8	2.1*	2.8*
Average Percentage of Weeks Employed, by Quarter				
8	49.9	49.5	0.4	0.6
9	53.2	52.5	0.7	1.0
10	55.7	53.8	1.9*	2.6*
Average Hours Employed per Week, by Quarter				
8	22.5	22.1	0.4	0.5
9	23.9	23.3	0.6	0.8
10	24.8	23.7	1.0*	1.4*
Sample Size	**7,311**	**4,476**	**11,787**	

SOURCE: 12- and 30-month follow-up interview data.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps.

*Significantly different from zero at the .05 level, two-tailed test.

Job Corps had small but statistically significant impacts on the employment rate and time spent employed late in the follow-up period (Figure 6 and Table 3). The impacts on the employment-related measures were negative during the in-program period, but they became positive in quarter 8. In quarter 10, the impact on the employment rate was about 2 percentage points per eligible applicant.(67 percent for the program group, compared to 65 percent for the control group). The quarter 10 impact on hours employed per week was 1 hour per eligible applicant (25 hours for the program group, compared to 24 hours for the control group).

The earnings gains late in the period were due to a combination of greater hours of work and higher earnings per hour. Program group members earned about $8 more per week in quarter 10 than control group members because they worked more hours, and they earned about $5 more per week because they had higher earnings per hour. These gains sum to the $13 impact on earnings per week in quarter 10.

Program group members secured higher-paying jobs with slightly more benefits in quarter 10. These findings suggest that Job Corps increases participants' skill levels and, hence, productivity. In the most recent job in quarter 10, the average hourly wage rate was $0.25 higher for the employed program group than for the employed control group ($7.07 as compared to $6.82), although job tenure was typically shorter for the employed program group. Furthermore, the wage gains were similar across broad occupational categories, although similar percentages of program and control group members worked in each occupational area.

Employed program group members were slightly more likely to hold jobs that offered fringe benefits. For example, about 41 percent of the employed program group were offered retirement or pension benefits, compared to 38 percent of the employed control group (a statistically significant increase of 3 percentage points, or about 8 percent). Similarly, about 50 percent of the employed program group were offered health insurance, compared to 48 percent of the control group.

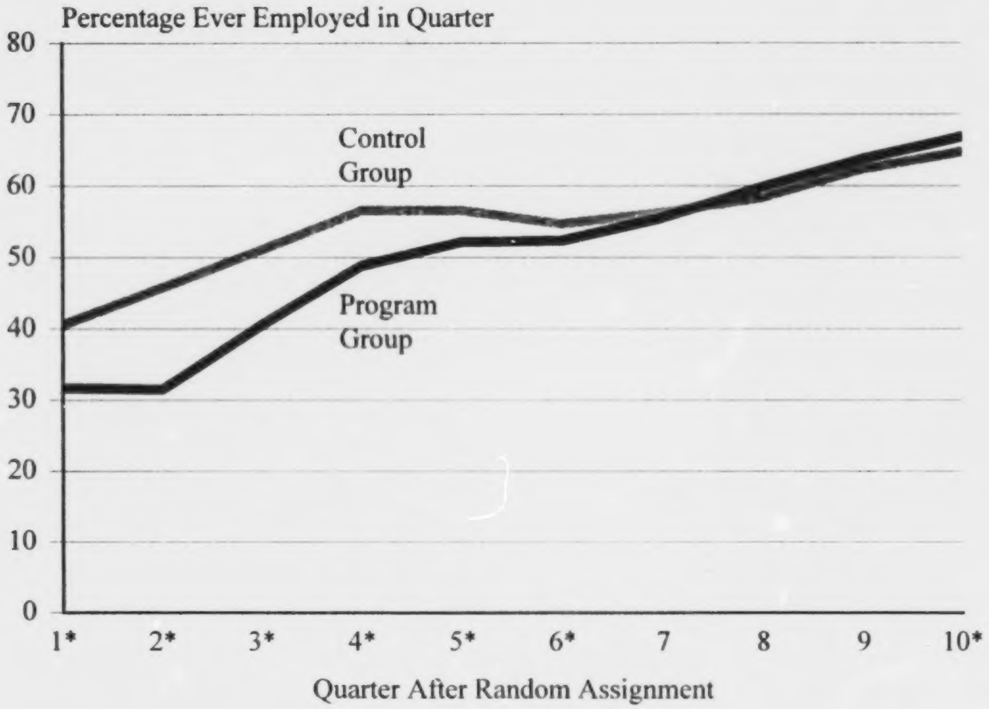
Impacts near the end of the 30-month follow-up period were somewhat larger for youths who are at particular risk of poor labor market outcomes. Positive short-term gains were found broadly across most key subgroups defined by youth characteristics at baseline. However, there is some evidence that impacts were larger for very young students, females with children at random assignment, and older youths who did not possess a high school credential at random assignment. While the impact per participant on earnings per week in quarter 10 was $18 for the full sample (an 11 percent gain), it was $26 for those 16 and 17 (a 19 percent gain), $30 for females with children (a 24 percent gain), and $36 for 20- to 24-year-old students without a high school credential (a 22 percent gain).

The residential program component was effective in the short term for broad groups of students. Earnings and employment impacts in quarter 10 for those assigned to the residential component were positive overall, and they were similar for residential males, females with children, and females without children.

The nonresidential component substantially improved short-term employment and earnings of females with children, but it did not improve these outcomes for males or for females without children. For females with children, participation in the nonresidential component

FIGURE 6

EMPLOYMENT RATES, BY QUARTER



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

improved earnings per week in quarter 10 by more than $45--an increase of 37.5 percent. The estimated impacts on earnings for males and females without children were small and not statistically significant.

We emphasize again that the impact findings by residential status should be interpreted with caution. As discussed, our estimates provide information about the effectiveness of each component for the populations it serves. The estimates cannot be used to assess how a youth in one component would fare in the other one, or how effective each component would be for the average Job Corps student. This is because the characteristics of residents differ from those of nonresidents in ways that can affect outcomes.

WELFARE, CRIME, ILLEGAL DRUG USE, AND OTHER OUTCOMES

The study examines the impacts of Job Corps on several additional outcomes to help assess whether the program achieves its goals of helping students become more responsible and productive citizens. This section reports on impacts on welfare dependence; involvement with the criminal justice system; use of tobacco, alcohol, and illegal drugs; the overall health of participants; the likelihood of bearing or fathering children while unmarried; custodial responsibility; the likelihood of forming stable, long-term relationships; and mobility.

Our main results are as follows:

Job Corps participation reduced the receipt of public assistance benefits (Table 4). Overall, program group members reported receiving about $300 less in benefits (across several public assistance programs) than control group members, and this impact is statistically significant. The estimated program impacts on the receipt of individual types of assistance were small and in many cases not statistically significant. The number of months receiving AFDC/TANF benefits differed by just 0.2 months (3.5 months for the program group and 3.7 for the control group). Control group members received food stamps for slightly more months on average than program group members (4.6 months as compared to 4.2 months). Impacts on the receipt of GA, SSI, and WIC benefits and on the likelihood of being covered by public health insurance were small.

Contrary to our expectations that reductions in welfare benefits would be concentrated during the in-program period, when students' material needs were met by the program, the reductions in benefit receipt were fairly uniform across the 30-month follow-up period. To some extent, this reflects different time patterns of the impacts for different groups. The benefit reductions for males were uniform throughout the follow-up period. For females without children at baseline, benefit reductions were largest early in the follow-up period and then declined to nearly zero. In contrast, the benefit reductions for females with children at baseline, most of whom were nonresidential students, were negligible during the in-program period, when welfare helped support the participant and her child, but became larger during the postprogram period, when earnings also increased.

Job Corps participation significantly reduced arrest and conviction rates, as well as time spent in jail (Table 4). About 27.7 percent of control group members were arrested during the 30-month follow-up period, compared to 23.3 percent of program group members (a statistically

TABLE 4

IMPACTS ON KEY PUBLIC ASSISTANCE AND CRIME OUTCOMES

	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Estimated Impact per Participant[b]
Average Amount of Benefits Received, by Period (in Dollars)				
All months	2,451.7	2,761.1	-309.5*	-424.5*
Months 1 to 12	1,044.2	1,167.5	-123.3*	-169.2*
Months 13 to 24	935.4	1,052.7	-117.3*	-160.9*
Months 25 to 30	460.7	519.7	-59.0*	-80.9*
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Period				
All months	23.3	27.7	-4.4*	-6.1*
Months 1 to 12	11.6	14.5	-2.9*	-4.0*
Months 13 to 24	11.3	12.1	-0.8	-1.1
Months 25 to 30	7.6	8.9	-1.3*	-1.7*
Percentage Convicted, Pled Guilty, or Adjudged Delinquent During the 30 Months After Random Assignment	17.0	20.5	-3.5*	-4.8*
Percentage Served Time in Jail for Convictions During the 30-Month Period	11.3	14.0	-2.8*	-3.8*
Average Weeks in Jail for Convictions During the 30-Month Period	2.5	3.1	-0.6*	-0.8*
Sample Size	**7,311**	**4,476**	**11,787**	

SOURCE: 12- and 30-month follow-up interview data.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps.

[c] Benefits include AFDC/TANF, food stamps, SSI/SSA, and General Assistance.

*Significantly different from zero at the .05 level, two-tailed test.

significant impact of -4.4 percentage points per eligible applicant). The impact per participant was -6.1 percentage points, which translates to a 22 percent reduction in the arrest rate due to program participation. Reductions in the arrest rates were largest during the first year after random assignment (when most program enrollees were in Job Corps). Interestingly, however, arrest reductions were also statistically significant during the later months of the follow-up period, after most youths had left Job Corps.

Program group members were less likely to have arrest charges for all categories of crimes. However, reductions were slightly larger for less serious crimes (such as disorderly conduct and trespassing).

Job Corps participation also reduced convictions and incarcerations resulting from a conviction. Nearly 21 percent of control group members were ever convicted during the follow-up period, compared to 17 percent of program group members. Similarly, Job Corps reduced the percentage incarcerated for convictions by 3 percentage points (from 14 percent to 11 percent) and the average time spent in jail by about 4 days.

Although the level of criminal activity differed substantially across youth subgroups, the impacts on crime outcomes were very similar (in particular, by gender and age). We find some differences, however, in crime impacts by residential status. Job Corps reduced arrest rates for male residents, female residents, and female nonresidents. However, impacts were smaller for male nonresidents.

Job Corps had no impacts on the self-reported use of tobacco, alcohol, and illegal drugs. This finding applied for the full sample and for key subgroups. Job Corps also had little effect on time spent in drug treatment.

Job Corps participation improved participants' perceived health status. At each interview, about 18 percent of the control group and 15 percent of the program group said their health was "poor" or "fair."

Job Corps had no impacts on family formation, either for the full sample or for youth subgroups. About 25 percent of those in both the program and control groups had a child during the follow-up period (32 percent of females and 19 percent of males), and about 85 percent of children were born out of wedlock. About one-quarter of each group was living with a partner at the 30-month interview. Less than 40 percent of male parents in each group were living with all their children, but about 80 percent of male parents were providing support for noncustodial children.

Job Corps had no impact on mobility. The distance between the zip codes of residence at application to Job Corps and at the 30-month interview was less than 10 miles for about three-quarters of both research groups. Furthermore, the average characteristics of the counties of residence at 30 months were similar for program and control group members, and they were similar to the average county characteristics of residence at the time the youths applied to Job Corps.

CONCLUDING OBSERVATIONS

Job Corps provided participants with the instructional equivalent of one additional year in school. Enrollees reported receiving extensive Job Corps services. Overall, they received an average of about 1,000 hours of academic classroom instruction and vocational training that they would not have received otherwise. This is approximately the hours of instruction delivered in a typical school year. These impacts on education and training could have led to the postprogram earnings gains we observed.

Of course, Job Corps also provides other services that could have contributed to the postprogram earnings gains. It provides a residential living program, health care, and a broad range of services designed to help youth who have not succeeded in school to become productive young adults. Many staff and observers of the program believe that the distinctive residential component of Job Corps is a key ingredient, both because the residential component is necessary for delivering effective academic and vocational instruction and because the experience of living in a community committed to learning has intrinsic benefits apart from the formal education and training that Job Corps provides. Because of the comprehensive nature of Job Corps, it is not possible to determine the relative contributions of the different parts of the program to the beneficial short-term impacts that we find. However, viewing Job Corps as providing an additional year of schooling offers a way to place the short-term earnings impacts into perspective.

Earnings gains observed early in the third year after random assignment are commensurate with what would be expected from an additional year of school. Economists have long been concerned about the returns to schooling. They pose the question: how much difference does an additional year of schooling make in the lifetime earnings of an individual? The answers they have developed over the last two decades provide an important perspective on the study's short-term findings.

Studies of the average returns to a year of schooling consistently find that a year of schooling increases earnings over a worker's lifetime by 5 to 8 percent. Measured in hours spent in academic classes and vocational training, Job Corps provided roughly the equivalent of a year of additional schooling per participant. In this context, the 11 percent earnings gains per participant observed near the end of the 30-month period are in line with what one would expect from an intensive education and training program that serves primarily school-aged youth. Observing whether these modest gains persist, increase, or decrease over a longer follow-up period will be critical for forming a judgment about whether Job Corps is a good investment for students and for the public.

The residential and nonresidential programs serve different groups of students, and each is effective for the groups it serves. Impacts on earnings for residential students were positive near the end of the follow-up period for most groups. Short-term earnings impacts for nonresidential students were also positive overall. Yet it is not appropriate to conclude that the residential component could be abolished and everyone served just as well in the nonresidential component. Indeed, our findings point to the opposite conclusion. The nonresidential component appears to provide positive benefits for females with children, but not for males or for females with no children. Thus the nonresidential program provides an avenue of participation in Job Corps--and commensurate earnings gains--for a group who would be unable to participate in the residential Job

Corps program because of family responsibilities. The finding that males and females without children who participate in the nonresidential component derive no net benefit over and above the benefit they can get from the many other education and training opportunities available in the community appears very consistent with the finding on youth from the National JTPA Study.[5]

Most subgroups of students benefited from Job Corps. Positive short-term earnings gains were observed for most groups, including those defined by gender, age, race and ethnicity, arrest experience, and whether the youth applied to the program before or after the new ZT policies took effect. Thus, overall positive impacts were not due to the experiences of a particular group but were widespread throughout the population that the program serves. Nevertheless, the impacts for several particularly vulnerable or difficult-to-serve groups are especially noteworthy.

The positive impacts for 16- and 17-year-old youth are striking. For this group: (1) earnings gains per participant were nearly 20 percent by the end of the follow-up period, (2) the percentage earning a high school diploma or GED was up by 80 percent, and (3) arrest rates were reduced by 14 percent and rates of incarceration for a conviction were reduced by 26 percent. Indeed, the average total earnings of 16- and 17-year-old participants over the entire 30-month period were higher than they would have been had they not participated in Job Corps (although the impact is not statistically significant). While staff find this group difficult to deal with, and while more of them leave Job Corps before completing their education and training than do older students, the youngest age group appears to benefit substantially from their program experiences soon after they leave the program. It will be especially important to observe the time trajectory of the impacts for this group over a longer period.

Among older students, the greatest earnings gains were among those who lacked a high school credential. We speculate that these students benefited from what Job Corps offers: a highly structured environment and intensive instruction in academic subjects and in a trade. Older students who were better prepared academically did well in Job Corps, but they were also more likely to do well in other education and training settings and the workplace. Consequently, Job Corps was less able to raise their employment and earnings. Of course, we need to wait for longer-term impacts to be confident that short-term gains of older students were not lower solely because it took longer for the benefits of their participation to become apparent.

Females with children at the time of enrollment enjoyed significant earnings gains and modest reductions in welfare receipt. As noted, most young women with children enrolled in Job Corps as nonresidential students, because child-rearing responsibilities required that they live at home. However, these young women received similar amounts of academic classroom instruction and vocational training as other students, despite living at home, and enjoyed higher-than-average increases in their earnings near the end of the 30-month follow-up period.

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[5] Orr, L., H. Bloom, S. Bell, F. Doolittle, W. Lin, and G. Cave. *Does Training for the Disadvantaged Work? Evidence from the National JTPA Study.* Washington DC: Urban Institute Press, 1996.

I. INTRODUCTION

Job Corps plays a central role in federal efforts to provide employment assistance to disadvantaged youths ages 16 to 24. The program's goal is to help disadvantaged youths become "more responsible, employable, and productive citizens" by providing comprehensive services, including basic education, vocational skills training, counseling, and residential support. Each year, Job Corps serves more than 60,000 new enrollees and costs more than $1 billion.

The National Job Corps Study, funded by the U.S. Department of Labor (DOL), was designed to provide information about the effectiveness of Job Corps in attaining it goal.[1] The cornerstone of the study was the random assignment of all youths found eligible for Job Corps to either a program group or a control group. Program group members were permitted to enroll in Job Corps, and control group members were not (although they could enroll in other training or education programs). The research sample for the study consists of approximately 9,400 program group members and 6,000 control group members randomly selected from among nearly 81,000 eligible applicants nationwide. Sample intake occurred between November 1994 and February 1996.

This report presents estimates of the short-term impacts of Job Corps on participants' employment and related outcomes during the 30 months after random assignment. The report addresses the following research questions:

- How effective is Job Corps overall at improving the employability of disadvantaged participants in the short term?
- Do Job Corps short-term impacts differ for youths with different characteristics?

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[1] The study is being conducted by Mathematica Policy Research, Inc. (MPR) and its subcontractors, Battelle Memorial Institute and Decision Information Resources, Inc.

In conclusion, the 48-month interview data will be used to assess whether the beneficial employment, earnings, and related impacts that we have found in the short term, and the pattern of impacts across subgroups, persisted past the 30-month point. This future analysis will provide a more complete answer to the question of whether Job Corps is a worthwhile investment for the students who devote an average of eight months to the program, and for the broader society that supports their efforts.

- How effective are the residential and nonresidential components of Job Corps in the short term?

To examine these questions, we estimated the impact of Job Corps on key outcome measures by comparing the distribution of outcomes of program and control group members, for the full sample and for key subgroups. The outcome measures for the analysis were constructed using follow-up survey data collected 12 and 30 months after random assignment, and key subgroups were defined using baseline interview and program intake data.

The findings presented here should be interpreted as *short-term* program impacts, because the 30-month follow-up period includes a relatively short postenrollment period for some program group members who enrolled in Job Corps. Program group participants reported staying in Job Corps an average of about eight months, and more than a fourth stayed for longer than one year. A future report will present estimates of longer-term impacts based on 48-month follow-up interviews.

The rest of the report begins in Chapter II with an overview of the Job Corps program and the National Job Corps Study (with a focus on the design of the impact study). Chapter III describes data sources, outcome measures, and analytic methods used for the analysis. Chapter IV provides a brief summary of the Job Corps experiences of those in the program group. These three chapters provide important background and contextual information to aid in the interpretation of study findings. Chapters V, VI, and VII present short-term impact estimates on the following categories of outcome measures that we hypothesized could be influenced by participation in Job Corps: (1) education and training; (2) employment, earnings, and job characteristics; and (3) nonlabor market outcomes, including the receipt of public assistance and other sources of income; criminal activities; tobacco, alcohol, and illegal drug use; and health, family formation, and mobility.

II. OVERVIEW OF JOB CORPS AND THE NATIONAL JOB CORPS STUDY

Job Corps is an intensive and comprehensive program whose goal is to help disadvantaged youths become "more responsible, employable, and productive citizens." The first part of this chapter summarizes the operational structure of Job Corps, key program elements, and the characteristics of youths who apply for the program and are determined to be eligible. The second part of the chapter provides an overview of the National Job Corps Study, including the primary research questions and the main study features that are being employed to assess the effectiveness of Job Corps. The focus of this section is to describe the study design for the impact analysis.

A. OVERVIEW OF JOB CORPS

The Job Corps program, established by the Economic Opportunity Act of 1964, operates under provisions of the Job Training Partnership Act (JTPA) of 1982.[1] The operational structure of Job Corps is complex, with multiple levels of administrative accountability, several distinct program components, and numerous contractors and subcontractors. The U.S. Department of Labor (DOL) administers Job Corps through a national office and nine regional offices. The national office establishes policy and requirements, develops curricula, and oversees major program initiatives. The regional offices procure and administer contracts and perform oversight activities, such as reviews of center performance.

Through its regional offices, DOL uses a competitive bidding process to contract out center operations, recruiting and screening of new students, and placement of students into jobs and other educational opportunities after they leave the program. At the time of the study, 80 centers were operated under such contracts. In addition, the U.S. Departments of Agriculture and of the Interior operated 30 centers, called Civilian Conservation Centers (CCCs), under interagency agreements with DOL. Figure II.1 shows the location of the 105 Job Corps centers in the contiguous 48 states and the District of Columbia that were in operation at the time our program group members were enrolled, and displays the nine Job Corps regions.[2,3]

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[1] Beginning in July 2000, Job Corps will operate under provisions of the Workforce Investment Act (WIA) of 1998.

Next, we briefly outline the roles of the three main program elements and then highlight key characteristics of youths served by the program. The section concludes with a discussion of major policy changes that occurred during the study period. The process analysis report for the evaluation provides more details on these topics (Johnson et al. 1999).

1. Outreach and Admissions

Outreach and admissions (OA) agencies conduct recruitment and screening for Job Corps. OA agencies include private nonprofit firms, private for-profit firms, state employment agencies, and the centers themselves. These agencies provide information to the public through outreach activities (for example, by placing advertisements and making presentations at schools), screen youths to ensure that they meet the eligibility criteria, assign youths to centers (when the regional office delegates this function), and arrange for transportation to centers.

2. Job Corps Center Services

Job Corps is a comprehensive and intensive program. Its major components include basic education, vocational training, residential living (including training in social skills), health care and education, counseling, and job placement assistance. Services in each of these components are tailored to each participant.

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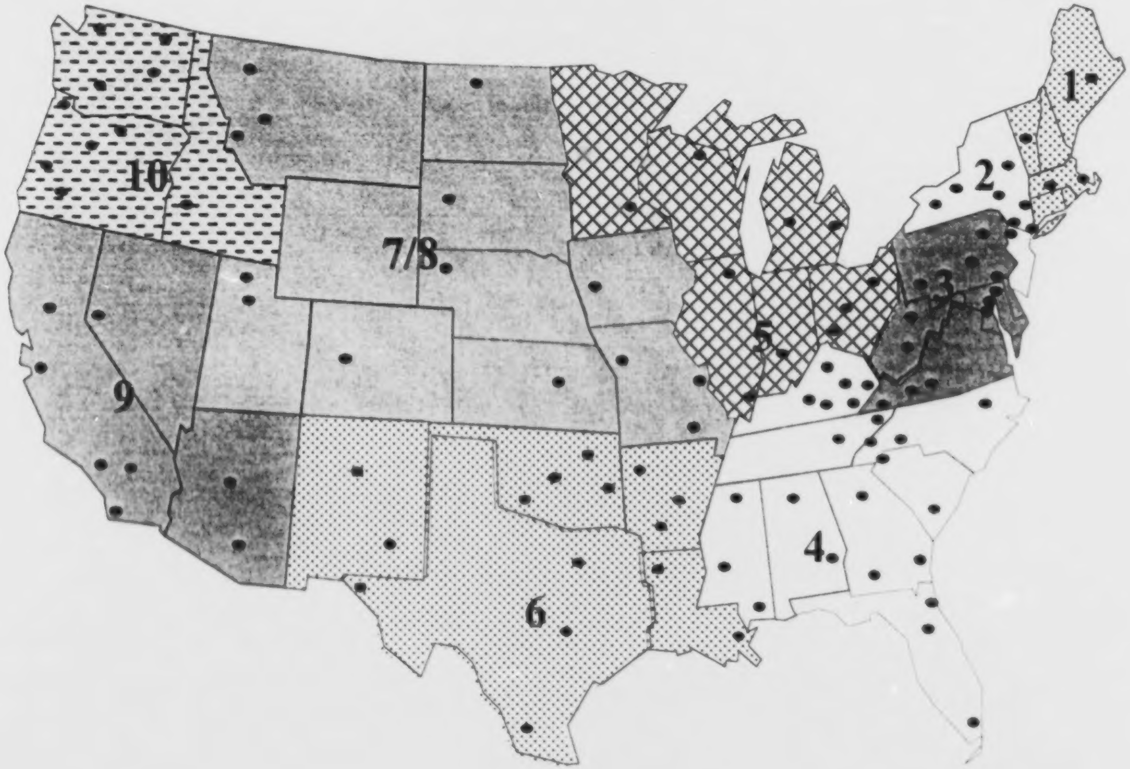
[2] In total, there were 110 centers in operation, including the five centers in Alaska, Hawaii, and Puerto Rico.

[3] There are currently 119 centers in operation.

FIGURE II.1

JOB CORPS CENTERS IN PROGRAM YEAR 1995, BY REGION



• Indicates one of the 105 Job Corps Centers in the contiguous 48 States and the District of Columbia.

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Education. The goal of the education component is to enable students to learn as fast as their individual abilities permit. Education programs in Job Corps are individualized and self-paced, and they operate on an open-entry and open-exit basis. The programs include remedial education (emphasizing reading and mathematics), world of work (including consumer education), driver education, home and family living, health education, programs designed for those whose primary language is not English, and a General Educational Development (GED) program of high school equivalency for academically qualified students. About one-fourth of the centers can grant state-recognized high school diplomas.

Vocational Training. The vocational training programs at Job Corps, like the education component, are individualized and self-paced and operate on an open-entry and open-exit basis. Each Job Corps center offers training in several vocations, typically including business and clerical, health, construction, culinary arts, and building and apartment maintenance. National labor and business organizations provide vocational training at many centers through contracts with the Job Corps national office.

Residential Living. Residential living is the component that distinguishes Job Corps from other publicly funded employment and training programs. The idea behind residential living is that, because most participants come from disadvantaged environments, they require new, more supportive surroundings to derive the maximum benefits from education and vocational training. All students must participate in formal social skills training. The residential living component also includes meals, dormitory life, entertainment, sports and recreation, center government, center maintenance, and other related activities. Historically, regulations had limited the number of nonresidential students to 10 percent, but Congress raised that limit to 20 percent in 1993.

Health Care and Education. Job Corps centers offer comprehensive health services to both residential and nonresidential students. Services include medical examinations and treatment; biochemical tests for drug use, sexually transmitted diseases, and pregnancy; immunizations; dental examinations and treatment; counseling for emotional and other mental health problems; and instruction in basic hygiene, preventive medicine, and self-care.

Counseling and Other Ancillary Services. Job Corps centers provide counselors and residential advisers. These staff help students plan their educational and vocational curricula, offer motivation, and create a supportive environment. Support services are also provided during recruitment, placement, and the transition to regular life and jobs following participation in Job Corps.

3. Placement

The final step in the Job Corps program is placement, which helps students find jobs in training-related occupations with prospects for long-term employment and advancement. Placement contractors may be state employment offices or private contractors, and sometimes the centers themselves perform placement activities. Placement agencies help students find jobs by providing assistance with interviewing and resume writing and services for job development and referral. They are also responsible for distributing the readjustment allowance, a stipend students receive after leaving Job Corps.

4. Characteristics of Youths Served by Job Corps

To participate in Job Corps, youths must be legal U.S. residents ages 16 to 24. Males 18 or older must be registered with the Selective Service Board, and minors must have the consent of a parent or guardian. Youths must also be disadvantaged (defined as living in a household that receives welfare or has income below the poverty level) and living in a debilitating environment that substantially impairs prospects for participating in other programs. Youths must need additional education, training, and job skills and possess the capacity and aspirations to benefit from Job Corps. They must also be free of serious behavior and medical problems, and they must have arranged for adequate child care (if necessary) when they participate in Job Corps.

The detailed information from the study's baseline interview provides insights about the backgrounds of eligible Job Corps applicants (Schochet 1998a). Most eligible applicants are male (60 percent), and most are less than 20 years old (40 percent are 16 or 17 years old, and nearly one-third are 18 or 19). About 40 percent live in the South, and more than 70 percent are members of racial or ethnic minority groups: 50 percent are African American, 18 percent are Hispanic, 4 percent are Native American, and 2 percent are Asian or Pacific Islander. Most (nearly 80 percent) do not have a high school credential. About 18 percent have children, and nearly 60 percent received some form of public assistance during the year prior to random assignment. About one-quarter reported that they had ever been arrested, and about 30 percent reported using illegal drugs in the year prior to random assignment.

The characteristics of eligible applicants differ by gender and age. Female applicants tend to be older than male applicants, and a higher percentage have children (29 percent, compared to 11 percent). Consequently, a much higher percentage of females (and especially females with children) are assigned to the nonresidential component. Females are more likely to have a high school credential (27 percent, compared to 17 percent of males) at the time of program application, in part because they are older. Females are also less likely to report having used illegal drugs in the prior year (25 percent, compared to 35 percent of males) or ever having been arrested (17 percent, compared to 33 percent of males).

Many of the differences across age groups would be expected. For example, older applicants are much more likely than younger applicants to have been recently employed and to have a high school credential (50 percent of those ages 20 to 24 have a credential) and are much less likely to have recently participated in an education program.

Younger eligible applicants exhibit several characteristics that suggest they may be more disadvantaged and harder to serve than older applicants. A higher proportion of younger applicants report having used drugs, having ever been arrested, and having recently been arrested. Furthermore, younger applicants are more likely to come from single-parent households and from families that received public assistance in the prior year.

5. Policy Changes Related to Violence and Drugs

In response to congressional concerns about the operation of the Job Corps program, new zero-tolerance (ZT) policies for violence and drugs were instituted in March 1995--early in the sample intake period for the National Job Corps Study. The new policies were instituted to ensure full and consistent implementation of existing policies for violence and drugs. According to the new, stricter ZT policy, students accused of specific acts of violence (possession of a weapon, assault, sexual assault, robbery, extortion, or arson), or arrested for a felony are to be removed from the center immediately and are terminated from the program if fact-finding establishes they committed the alleged offenses. The ZT policy for drugs uses the same procedures for students accused of possession or sale of illegal drugs or alcohol on center or convicted of a drug offense.

The policies were intended to facilitate the rapid removal of offending students and to eliminate any discretion of staff regarding termination. Most Job Corps staff reported that the new policies substantially improved the quality of life on centers (Johnson et al. 1998). Thus, the new policies could have affected program impacts. Consequently, as discussed in Chapter III, we computed separate impact estimates for sample members who applied to Job Corps before and after the new ZT policies became effective.

B. OVERVIEW OF THE NATIONAL JOB CORPS STUDY

The National Job Corps Study addresses six major research questions:

1. How effective is Job Corps overall at improving the employability of disadvantaged youth?
2. Does the effectiveness of Job Corps differ for youths with different personal characteristics or experiences before application to Job Corps? Do impacts vary by gender, age, the presence of children, education level, race and ethnicity, or arrest history?
3. Do program impacts differ for centers with different characteristics? Do impacts vary by CCC or center contractor type, center size, center performance level, or region?
4. Do program impacts differ for enrollees with different program experiences? Do impacts differ by residential status, duration of stay, or vocational training area?
5. What is the Job Corps program "model," and how well is it implemented in practice?
6. Is Job Corps cost-effective?

The study consists of an impact analysis (to address Questions 1 to 4), a process analysis (to address Question 5), and a benefit-cost analysis (to address Question 6).

This report presents short-term impact estimates for the full sample and for subgroups defined by youth characteristics (to address the first two research questions). This analysis forms the core of the 30-month impact analysis because it provides information about the effectiveness of Job Corps overall and identifies groups of the eligible population that benefit most (and least) from the program in the short term. The report also assesses the effectiveness of the residential and nonresidential components. This facet of the overall evaluation is of considerable policy interest for two reasons: (1) the residential component is the distinguishing feature of Job Corps, and (2) previous studies (for example, the JTPA and Jobstart evaluations) indicate that disadvantaged youths do not benefit significantly from participation in training programs that offer basic education and job-training services in a nonresidential setting.

Separate reports will present impacts for subgroups defined by key center characteristics (to address Question 3) and other program experiences (to address the rest of Question 4). The purpose of these analyses is to identify program features and components that are particularly effective in order to help policymakers improve program operations and direct future program expansions.

In the rest of this section, we first provide an overview of the sample design for the impact analysis. Second, we review the evidence that the random assignment design was successfully implemented, which would suggest that program impacts can be effectively estimated. More details on these topics are provided in the report on study implementation (Burghardt et al. 1999). Finally, we briefly discuss key features of the process and benefit-cost analyses.

1. Impact Analysis

The central feature of the study design was the random assignment of all youths found eligible for Job Corps, either to a program group whose members were permitted to enroll in Job Corps or to a control group whose members were not. DOL considered both random assignment and nonexperimental design options in the initial design stages of the study. Because of the need for reliable, credible information about program impacts, a study advisory panel, which included representatives of Job Corps, concluded that a random assignment design was feasible and should be used for the study.

a. Sample Design

Sample intake occurred between November 1994 and February 1996. With few exceptions, all youths who applied to Job Corps for the first time between November 16, 1994, and December 17, 1995, and were found eligible for the program were included in the study--a total of 80,883 eligible applicants. During the sample intake period, 5,977 Job Corps-eligible applicants were randomly selected to the control group. Approximately 1 eligible applicant in 14 (seven percent of 80,883 eligible applicants) was assigned to the control group.

During the same 16-month period, 9,409 eligible applicants were randomly selected to the research sample as members of the program research group (hereafter referred to as the program group).[4] Because random assignment occurred after youths were determined eligible for Job Corps (and *not* after they enrolled in Job Corps centers), the program group includes youths who enrolled in Job Corps (about 73 percent of eligible applicants), as well as those who did not enroll, the so-called "no-shows" (about 27 percent of eligible applicants). Although the study's research interest focuses on enrollees, all youths who were randomly assigned, including those who did not enroll at a center, were included in the analysis to preserve the benefits of the random assignment design.

Control group members were not permitted to enroll in Job Corps for a period of three years, although they were able to enroll in other programs available to them. Thus, the outcomes of the control group represent the outcomes that the program group would have experienced if they were not given the opportunity to enroll in Job Corps. Because control group members were allowed to enroll in other education and training programs, the comparisons of program and control group outcomes represent the effects of Job Corps *relative to other available programs* that the study population would enroll in if Job Corps were not an option. The impact estimates do not represent the effect of the program relative to no education or training; instead, they represent the incremental effect of Job Corps.

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[4] The remaining 65,497 eligible applicants were randomly assigned to a program nonresearch group. These youths were allowed to enroll in Job Corps but are not in the research sample.

The National Job Corps Study is based on a fully national sample. With a few exceptions, the members of the program and control groups were sampled from *all* OA agencies located in the contiguous 48 states and the District of Columbia, rather than from only some OA agencies in certain areas.[5] This design feature allows us to obtain impact estimates more precise than those that could be obtained from a clustered sample of the same size. In addition, the nonclustered design spread the burden of random assignment across all OA agencies and Job Corps centers, which reduced the burden on any one agency or center.

The sampling rates to the control and program groups differed for some population subgroups for both programmatic and research reasons. For example, OA agencies experienced difficulties recruiting females for residential slots, and Job Corps staff were concerned that the presence of the control group would cause these slots to go unfilled. Therefore, sampling rates to the control group were set lower for females in areas from which high concentrations of residential students come. Because of differences in sampling rates across population subgroups, all analyses were conducted using sample weights so that the impact estimates can be generalized to the intended study population: applicants in the 48 contiguous states and the District of Columbia who applied to Job Corps during the 13-month period between November 17, 1994, and December 16, 1995, and who were determined to be eligible for the program.[6]

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[5] Youths who previously participated in Job Corps ("readmits") or who applied for one of seven small, special Job Corps programs were excluded from the study (see Burghardt et al. 1999).

[6] The study population also included only those whose random assignment forms were received by MPR before March 1, 1996. This restriction did not exclude many eligible applicants who applied to the program during the 13-month period, because the time between program application and eligibility determination is typically very short.

b. Implementation of Random Assignment

As expected, random assignment produced equivalent groups, because the distribution of the characteristics of program and control group members prior to random assignment was similar (Schochet 1998b). However, our ability to draw valid inferences from a random assignment study depends on three conditions: (1) that all members of the study population were subject to random assignment, (2) that control group members did not enroll in the program, and (3) that operations of the program were not materially affected by the study.

To identify center enrollees in the study population who were not randomly assigned and to ensure that control group members did not enroll, we examined weekly extracts from the Job Corps Student Pay, Allotment, and Management Information System (SPAMIS) on all new center enrollees.

Our monitoring indicates that Job Corps staff implemented random assignment procedures well. Less than 0.6 percent of youths in the study population were not randomly assigned. In addition, only 1.4 percent of control group members enrolled in Job Corps before the end of the three-year period during which they were not supposed to enroll. Hence, we believe that the research sample is representative of the youths in the intended study population and that the bias in the impact estimates due to contamination of the control group is very small.

In general, the study did not appear to alter program operations substantially, which suggests that the study is evaluating Job Corps as it would have normally operated in the absence of the study. We found from the process analysis that the effects of the random assignment process on OA counselors' activities and on the composition of students coming to the program appear to have been modest. For example, few OA counselors said they started new outreach activities, spent more time on outreach, or lost referral sources because of the study. In addition, OA counselors do not appear to have provided substantially more assistance in finding alternative training opportunities to the control group than they provided for other applicants who could not enroll in Job Corps.

The study, however, contributed somewhat to the decrease in the number of center slots that were filled (that is, in center on-board strength) in early 1995, because control group members were removed from the pool of potential center enrollees. We estimate, however, that the introduction of the new ZT policies had a much larger effect on the decrease in center on-board strength. Nonetheless, the study could have had some effect on the training experiences of program group members, as centers served fewer students without reducing center staff.

2. Process Analysis

The purpose of the process study was to describe the key elements of the Job Corps program model and to document how they were implemented during calender year 1996--roughly the period when study program group members were enrolled in Job Corps centers (Johnson et al. 1999). The process study collected a large amount of information about OA practices, center operations, and placement from (1) a telephone survey of Job Corps OA counselors, (2) a mail survey of all Job Corps centers, and (3) visits to 23 centers.

The analysis found that Job Corps uses a well-developed program model and is successful in implementing it. Job Corps students are receiving substantial, meaningful education and training services. We refer to process analysis findings in this report because they provide important contextual information to help interpret findings from the impact analysis.

3. Benefit-Cost Analysis

The primary purpose of the benefit-cost analysis is to assess whether the benefits of Job Corps are commensurate with the substantial public resources invested in it. The most important benefits that will be valued are (1) increased output that may result from the additional employment and productivity of program participants; (2) increased output produced by youths while in Job Corps; (3) reduced criminal activity; and (4) reduced use of other services and programs, including welfare and other educational programs. The most important Job Corps costs include program operating costs and the earnings forgone while the youth attended Job Corps.[7]

The benefit-cost analysis will be conducted after the 48-month interview data become available, so that longer-term program benefits can be accurately measured.

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[7] The study design report (Burghardt et al. 1994) provides a detailed discussion of the design of the benefit-cost analysis. McConnell (1999) discusses the value of the output and services produced by students while enrolled in Job Corps.

III. DATA SOURCES, OUTCOME MEASURES, AND ANALYTIC METHODS

The short-term impact analysis was conducted using survey data collected during the 30 months after random assignment. Data on the experiences of sample members during the follow-up period were used to construct outcome measures so that the analysis could address the following research questions:

- Do participants receive more education and vocational training than they would have received if they had not participated in Job Corps? Are they more likely to obtain a high school credential or a vocational diploma?
- Does participation in Job Corps increase productivity and, hence, time spent employed and earnings?
- Does participation in Job Corps reduce dependence on welfare and other public transfers?
- Does Job Corps reduce the incidence and severity of crimes committed by program participants, both during and after the program?
- Are participants less likely to use tobacco, alcohol, and illegal drugs?
- Does Job Corps reduce the likelihood of bearing or fathering children while unmarried and increase the likelihood of forming a stable, long-term relationship?
- Do participants move to areas that offer opportunities different from those in the areas they came from?

To address these questions, we estimated program impacts by comparing the distribution of outcomes of program and control group members. Program impacts were estimated for the full sample and for key subgroups defined by youth characteristics (using baseline interview data) and whether the youth was designated for a residential or nonresidential slot (using program intake data).

A. DATA SOURCES

Four categories of data were used for the short-term impact analysis:

1. ***Follow-Up Interview Data Collected 12 and 30 Months After Random Assignment.*** These data contain information on the employment-related and other experiences of sample members during the follow-up period and were used to construct outcome measures for the impact analysis. Each follow-up interview contains information on the experiences of sample members since the previous interview. These data were used to construct longitudinal outcome measures so that changes in program impacts over time could be examined.

2. ***Baseline Interview Data.*** This information was collected soon after random assignment and contains background information on sample members and their experiences prior to the baseline interview. These data were used to create subgroups defined by youth characteristics at random assignment. In addition, they were used to construct outcome measures that pertain to the period between the random assignment and baseline interview dates.

3. ***Data from Job Corps Intake (ETA-652) Forms.*** These forms are the standard intake forms that OA counselors and program applicants fill out as part of the application process. They contain basic demographic information on applicants. MPR received these forms as part of the random assignment process and data-entered the information into the computer for those in the research sample. Because this information is available for *all* research sample members, it was used in the nonresponse analysis to compare the characteristics of interview respondents and nonrespondents, and to adjust sample weights to account for the possible effects of interview nonresponse on the impact estimates.

4. ***Data from the Supplemental ETA-652 Forms.*** These forms, which were created for the study, were filled out by outreach and admissions (OA) counselors as part of the application process and were sent to MPR as part of the random assignment process. The forms collected information on whether the youth was likely to be assigned to a residential or nonresidential slot. As described in more detail later in this chapter, this information was used to estimate program impacts for residential and nonresidential students. The forms also collected information on the center to which a youth was likely to be assigned. These data will be used in a separate report on program impact estimates for subgroups defined by key center attributes (for example, Civilian Conservation Center [CCC] or contract center type, center performance level, center size, and region).

The rest of this section provides an overview of the survey design, the interview response rates, and the analysis samples. A separate methodological report (Schochet, forthcoming) discusses these topics in more detail.[1]

1. Design of the Baseline and Follow-Up Interviews

Baseline interviewing took place between mid-November 1994 and July 1996. All sample members were contacted by telephone soon after they had been subject to random assignment. Detailed tracking information (contained in program intake forms sent to MPR as part of the random assignment process) was used to help locate youths. In randomly selected areas, in-person interviews were attempted with sample members not reachable by telephone within 45 days. Subsampling of youths for intensive in-person interviewing was done to contain data collection costs.

The target sample for the 12-month follow-up interview included (1) all sample members selected for in-person interviews at baseline (whether interviewed or not), and (2) those not eligible for in-person interviews at baseline who completed the baseline interview by telephone within 45 days after random assignment. Thus, youths who resided in areas not selected for in-person interviews and who did not complete a baseline interview by telephone within 45 days were not eligible for 12-month (and subsequent) interviews. At the end of the 12-month interview, an abbreviated baseline interview was administered to those 12-month respondents in the in-person areas who had not completed the full baseline interview.

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[1] Future reports will present findings using 48-month follow-up interview data, administrative data on social security earnings on all sample members, Unemployment Insurance (UI) administrative records from 17 randomly selected states, official arrest records from selected jurisdictions, and basic skills tests administered to a subsample of the research sample in conjunction with the 30-month interview.

A 30-month interview was attempted with all sample members who completed either the baseline or the 12-month interview. Respondents to the 30-month interview who completed a baseline interview but not the 12-month interview were asked about their experiences since the baseline interview.

For the 12- and 30-month interviews, we attempted interviews by telephone first, and, if unsuccessful, in person. In contrast to the in-person interviewing at baseline, there was no clustering of in-person interviews in the follow-up interviews. The 12-month interview was conducted between March 1996 and September 1997, and the 30-month interview was conducted between September 1997 and February 1999.

A $10 incentive fee was offered to control group members and hard-to-locate program group members (who were not at a Job Corps center) to induce them to complete each interview.

2. Response Rates and Data Quality

The response rate to the baseline interview for sample members in all areas was 93.1 percent. Interviews were completed with 14,327 of the 15,386 youths in the research sample, and most interviews were completed by telephone soon after random assignment. Furthermore, the difference in completion rates between the program and control groups was only 1.5 percentage points (93.8 percent program, 92.3 control). The response rate for sample members in the areas selected for in-person interviewing--the *effective* response rate--was 95.2 percent (95.9 percent program, 94.3 percent control). Response rates to the baseline interview were high for all key subgroups. Item nonresponse was infrequent for nearly all data items.

We completed 13,383 12-month interviews and 11,787 30-month interviews. As Table III.1 shows, the effective response rate to the 12-month follow-up interview was 90.2 percent (91.4

TABLE III.1

EFFECTIVE RESPONSE RATES TO THE 12-MONTH AND 30-MONTH FOLLOW-UP INTERVIEWS, BY RESEARCH STATUS AND KEY SUBGROUP

(Percentages)

	Effective Response Rate					
	12-Month Interview			30-Month Interview		
Subgroup	Program Group	Control Group	Combined Sample	Program Group	Control Group	Combined Sample
Full Sample	91.4	88.4	90.2	80.7	77.4	79.4
Gender						
Male	90.8	86.8	89.1	77.9	74.3	76.3
Female	92.2	91.0	91.8	84.2	82.7	83.7
Age at Application						
16 to 17	92.2	90.5	91.5	81.5	79.6	80.7
18 to 19	90.9	87.6	89.6	79.9	77.4	78.9
20 to 21	91.4	87.6	89.8	81.2	75.5	78.9
22 to 24	90.3	84.2	87.9	79.5	72.4	76.8
Race/Ethnicity						
White, non-Hispanic	89.9	87.0	88.7	80.1	77.4	79.0
Black, non-Hispanic	91.8	89.4	90.9	80.7	78.0	79.6
Hispanic	91.2	85.9	89.0	80.1	75.3	78.1
Other	94.6	90.6	92.9	86.1	78.0	82.8
Education						
Completed 12th grade	92.4	89.6	91.3	83.0	81.2	82.0
Did not complete 12th grade	91.2	88.1	89.9	80.1	76.5	78.8
Convictions						
Ever convicted or adjudged delinquent	91.1	88.6	90.0	77.5	72.5	75.4
Never convicted or adjudged delinquent	91.4	88.3	90.1	81.0	77.6	79.6
Residential Designation Status						
Resident	91.1	87.6	89.7	80.1	76.2	78.5
Nonresident	92.7	91.2	92.1	82.8	82.1	82.5
Sample Size in In-Person Areas[a]	**6,206**	**4,242**	**10,448**	**6,182**	**4,223**	**10,405**

SOURCE: 12-Month and 30-Month Interview data, and ETA-652 data.

NOTE: The effective response rate is the response rate for sample members eligible for in-person interviews at baseline (that is, those who lived in the in-person areas at application to Job Corps). Youths not in the in-person areas who did not complete baseline interviews by telephone within 45 days after random assignment were not eligible for follow-up interviews.

[a] Figures exclude those who died during the follow-up period and 63 cases (31 control group and 32 program group members) in the in-person areas who were determined to have enrolled in Job Corps prior to random assignment and were thus ineligible for the study.

percent program, 88.4 percent control), and the effective response rate to the 30-month interview was 79.4 percent (80.7 percent program, 77.4 percent control).[2] The response rates differed somewhat across some key subgroups, although the differences are small. For example, the 30-month interview response rate was slightly higher for females than males (84 percent compared to 76 percent) and for younger sample members than older ones (81 percent for those 16 and 17 years old, compared to about 78 percent for those 20 and older). Thus, the sample weights were adjusted to help reduce the potential bias in the impact estimates due to interview nonresponse.[3] As with the baseline interview, nonresponse to follow-up interview data items was infrequent.

The average 12-month interview was completed in month 14, and more than three-quarters of 12-month interviews were completed by month 15 (not shown). Similarly, the average 30-month interview was completed in month 32.5, and about 78 percent were completed by month 34. These figures are similar for program and control group members. Thus, the recall period was similar across sample members and did not differ, on average, by research status.

On the basis of these results, we believe that the interview response rates and data quality are high enough to produce credible short-term impact estimates for the full sample and for key subgroups.

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[2] The effective response rate is the response rate for youths in areas selected for in-person interviews at baseline. This is the relevant response rate for the study, because we did not attempt follow-up interviews with youths who were ineligible for in-person interviews at baseline and who did not complete a baseline interview by telephone within 45 days after random assignment.

[3] The methodological report (Schochet, forthcoming) provides a detailed discussion of interview nonresponse, including the methods used to adjust the sample weights to account for interview nonresponse.

3. Analysis Samples

The primary sample used for the analysis includes the 11,787 youths (7,311 program group members and 4,476 control group members) who completed 30-month interviews. About 96 percent of this sample also completed 12-month interviews. Furthermore, baseline interview data are available for everyone in this sample, because all youths completed either the full baseline interview or the abbreviated baseline interview in conjunction with the 12-month interview.[4] Thus, complete data are available for most of the analysis sample.

We also estimated impacts on outcome measures pertaining to the 12-month follow-up period using the (larger) sample of 13,383 youths who completed the 12-month interview. These results are almost identical to the estimates pertaining to the 12-month follow-up period obtained using the 30-month sample, and thus are not reported.

The follow-up period for the analysis sample covers the period from November 1994 (the first month after random assignment--month 1--for those randomly assigned in November 1994) to August 1998 (month 30 for those randomly assigned in February 1996). This was a period of strong economic growth. For example, the unemployment rate for the civilian population of those 16 and older was about 5.5 percent in late 1994 and about 4.5 percent in mid-1998. Similarly, the unemployment rate for those 16 to 19 decreased from about 17 percent in late 1994 to under 15 percent in mid-1998. As discussed in Chapter VI, it is difficult to determine the effects of the strong economy on the impact estimates. However, these potential effects should be kept in mind when interpreting the impact results.

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[4] About 300 cases completed an abbreviated baseline interview.

B. OUTCOME MEASURES

Three criteria guided specification of the major outcome measures for the impact analysis: (1) selecting outcomes that are likely to be influenced significantly by Job Corps participation, (2) selecting outcomes that have policy relevance, and (3) measuring outcomes reliably. Next, we discuss the primary outcome measures, our hypotheses about how they are likely to be affected by Job Corps participation, and their construction. Table III.2 displays the outcome measures used in the analysis.

1. Primary Outcome Measures

The primary outcome measures can be grouped into six areas:

Education and Training. The major goal of Job Corps is to provide intensive academic classroom instruction and vocational skills training to increase the productivity, and hence the future earnings, of program participants. The typical Job Corps student stays in the program for an extended period (about eight months on average), and most were not in school before program enrollment. Thus, participation in Job Corps probably leads to increases in the amount of education and training youths receive while enrolled (as measured by increases in hours and weeks received academic classroom instruction and vocational skills training). These increases in education and training could lead to increases in educational attainment (as measured by the receipt of a GED or vocational certificate). Participation in Job Corps may also lead to increases in postsecondary school enrollment (such as two- and four-year colleges, the military, and vocational schools) after Job Corps. Participation in Job Corps, however, is expected to lead to reductions in time spent in alternative programs (such as high school and GED programs outside of Job Corps). The effects on

TABLE III.2

OUTCOME MEASURES DEFINED OVER SPECIFIC PERIODS

Education and Training

All Programs
- Ever enrolled
- Number attended
- Weeks attended
- Hours per week attended

Specific Programs
- Ever enrolled in the following programs: Job Corps; high school; GED; ABE or ESL; vocational, technical, or trade; two-year college; four-year college
- Weeks attended, by type of program
- Hours attended, by type of program

Academic Classes
- Ever took
- Weeks took
- Hours per week took
- Types of programs where took

Vocational Training
- Ever received
- Weeks received
- Hours per week received
- Types of programs where received

Educational Attainment
- Degrees, diplomas, and certificates
  (high school diploma,[a] GED certificate,[a] vocational, technical, or trade certificate or diploma; associate degree; four-year college degree)
- Highest grade completed

Employment, Earnings, and Job Characteristics

Employment
- Ever employed
- Number of jobs
- Weeks employed
- Hours per week employed

TABLE III.2 *(continued)*

Employment, Earnings, and Job Characteristics (continued)

Earnings
- Distribution of earnings

Characteristics of the Most Recent Job in Quarter 10
- Had a job
- Months on job
- Usual hours worked per week
- Hourly wage
- Weekly earnings
- Occupation
- Type of employer (private company, military, federal employee, state employee, local government employee, self-employed)
- Job benefits available (health insurance, paid sick leave, paid vacation, child care assistance, flexible hours, employer-provided transportation, retirement pension benefits, dental plan, tuition reimbursement)

Education and Employment Activities
- Ever participated in any activity
- Weeks participated
- Hours per week participated

Receipt of Public Assistance and Other Sources of Income

Public Assistance
- Received benefits (AFDC/TANF, food stamps, General Assistance, SSI/SSA, WIC)
- Months received benefits, by type
- Amount of benefits received, by type
- Covered by public health insurance (such as Medicaid) at the 12- and 30-month interview
- Lived in a public housing project at the 12- and 30-month interview

Other Sources of Income
- Received income (Unemployment Insurance, child support, from friends, other income)
- Weeks received UI
- Amount received, by type

Crime, Alcohol and Illegal Drug Use, and Health

Criminal Activities
- Ever arrested or charged with a delinquency or criminal complaint
- Number of times arrested
- Months until first arrested
- Most serious charge for which arrested (murder or assault, robbery, burglary, larceny or other property crimes, drug law violations, other personal crimes, other miscellaneous crimes)
- All charges for which arrested
- Convicted, pled guilty, or adjudged delinquent
- Number of times convicted
- Made a deal or plea-bargained
- Most serious charge for which convicted
- All charges for which convicted
- Served time in jail for convictions
- Number of months in jail for convictions
- Put on probation or parole

Tobacco, Alcohol, and Illegal Drug Use in the 30 Days Prior to the 12- and 30-Month Interviews
- Smoked cigarettes
- Consumed alcoholic beverages
- Tried marijuana or hashish
- Snorted cocaine powder
- Smoked crack cocaine or freebased
- Used speed, uppers, or amphetamines
- Used hallucinogenic drugs
- Used heroin, opium, methadone, or downers
- Used other drugs
- Injected drugs with a needle or syringe

Drug and Alcohol Treatment
- In a drug or alcohol treatment program
- Weeks in drug treatment
- Place where treatment was received

Health
- Health status at 12 and 30 months
- At 12 and 30 months, had physical or emotional problems that limited the amount of work or other regular daily activities that could be done
- Type of serious health problem
- Weeks had serious health problem since random assignment

TABLE III.2 *(continued)*

Family Formation

Had children during follow-up period
Number of children had during follow-up period
Had children out of wedlock during follow-up period
Percentage of females pregnant
Had children at 30 months (including those born before and after random assignment)
Percentage of children living with sample member (for parents)
Percentage of absent children who lived with their other parent[b]
Time spent with children in the past three months[b]
Currently provided support for children (food, child care items, household items, clothing, toys, medicine, babysitting, money)[b]
Gave money in the past month[b]
Gave money occasionally or on a regular basis[b]
Amount of money gave in the past month[b]
Household membership (living with either parent, another adult relative, adult nonrelatives, or no other adults)
Whether sample member is the head of the household
Number in household
Marital status at 30 months (never married and not living together; married; living together; separated, divorced, or widowed)

Mobility

Distance in miles between zip codes of residence at application to Job Corps and at the 30-month interview
Lived in the same state at application to Job Corps and the 30-month interview
Characteristics of the counties of residence at application to Job Corps and the 30-month interview

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SOURCE: Baseline, 12-month, and 30-month interviews.

[a] Outcomes defined only for those who did not have a high school credential at random assignment.

[b] Outcomes defined for those not living with all their children.

high school graduation status, however, are unclear, because about one-fourth of Job Corps centers can grant state-recognized high school diplomas.[5]

Employment, Earnings, and Job Characteristics. The primary hypothesis is that, if all other things are equal, youths who obtain Job Corps education and training will become more productive and, hence, will have greater employment opportunities and higher earnings than those who do not. This increased productivity is expected to enhance employability (as measured by increases in labor force participation, employment, hours worked per week, and the proportion of weeks worked) and to increase wage rates, earnings, and fringe benefits available on the job. Furthermore, because the Job Corps program provides placement assistance to participants when they leave the program, program group members should be more likely than control group members to find jobs and to find jobs that match their skills.

We expect, however, that Job Corps participation will reduce employment and earnings during the period of enrollment, because some participants would hold jobs if they had not gone to Job Corps. However, as program participants finish their participation, we expect employment and earnings to rise after a period of readjustment. In light of the variation in the duration of program participation, it is difficult to predict how long after random assignment positive employment and earnings gains will emerge.

Receipt of Public Assistance and Other Sources of Income. A set of hypotheses closely related to labor market activities involves the effects of the Job Corps program on welfare dependence. Job Corps participants may experience a reduction in welfare receipt while they are in the program (to the extent that they would have been recipients were they not in the program). In addition, because their postprogram earnings may increase, they are expected to receive fewer public transfers (including Aid to Families with Dependent Children [AFDC] or Temporary Assistance for Needy Families [TANF], General Assistance [GA], food stamps, and Special Supplemental Food Program for Women, Infants and Children [WIC]).

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[5] Job Corps participation could also lead to improvements in literacy and numeracy skills, either directly, through participation in Job Corps basic education, or indirectly, by causing more students than would otherwise have done so to engage in skill-enhancing activities like work and further schooling. Program impacts on participants' basic skills will be presented in a future report.

Crime, Alcohol and Illegal Drug Use, and Health. Job Corps seeks to help youths become more employable and productive citizens. An important aspect of this process is to teach civic awareness and respect for others. In addition, many enrollees leave their neighborhoods to attend Job Corps. Thus, Job Corps is expected to reduce the incidence and severity of crimes committed by program participants (as measured by the number of arrests and convictions, the types of crimes committed, and the time spent in jails and on probation). While students are enrolled in the program, reductions in criminal activities should be pronounced, because Job Corps participants' activities are restricted, their behavior is monitored, and their material needs are met. Furthermore, most are isolated from social and environmental pressures to engage in criminal activities. After they leave the program, reductions in crime measures are expected to continue, but at a lower rate.

Job Corps is also expected to reduce participants' drug and alcohol use, both during and after the program. While youths are enrolled, impacts on drug and alcohol abuse should be pronounced, for two reasons. First, Job Corps forbids the use of these substances at centers, and behavior is closely monitored. Second, Job Corps provides some drug and alcohol abuse treatment. In the postprogram period, reductions in drug and alcohol use are expected to continue, because Job Corps should have a positive impact on attitudes toward drug and alcohol use. Psychological and financial benefits derived from the program may also induce participants to feel more hopeful and under less pressure to use these substances.

Participation in Job Corps is also expected to increase participants' overall health status, for reasons similar to those discussed earlier, and because the program offers comprehensive health services and health education.

Family Formation. Important dimensions of personal responsibility are relationships with members of the opposite sex and the decision to have and raise children. The Job Corps program recognizes the importance of this area by requiring all students to take education program units on social and emotional well-being, sexuality, and parenting. Perhaps more important, other aspects of center experience, as well as improvements in a youth's economic opportunities resulting from Job Corps participation, may lead to changes in relationships with members of the opposite sex and changes in behavior related to bearing and raising children. Thus, the study examines a series of five outcomes related to family formation and children: (1) the likelihood of marriage; (2) the likelihood of forming a stable, long-term relationship with a single partner; (3) the likelihood of bearing or fathering children while unmarried; (4) the likelihood of living with one's children and the level of involvement with child rearing; and (5) the nature and extent of financial and nonfinancial support for absent children.

Mobility. Many youths served by Job Corps live in neighborhoods where poverty rates are high and job opportunities are scarce. A core element of the philosophy motivating the residential component of Job Corps is that, for some, the home environment creates insurmountable barriers to succeeding in training and that removal from the home is necessary in order for the youth to take advantage of training. Indeed, living in a debilitating environment that precludes participation in other education and training programs is a key Job Corps eligibility criterion.

This element of Job Corps raises the question of whether participation promotes mobility of students. Participation in Job Corps could affect the types of areas where students live after they leave the program, because of job placement and location assistance and because higher earnings could make some neighborhoods more affordable. Thus, we examine the extent to which students return to the same areas that they lived in at the time of application, and the characteristics of the areas that they lived in at the 30-month interview.

2. Construction of Outcome Measures

Our analytic approach for the short-term impact analysis focused on estimating period-specific impacts (that is, differences in outcomes between program and control group members by period). Period-specific outcome measures were constructed using information on the dates that events occurred.[6] For example, we constructed timelines to determine whether a sample member was working or in school or training in a given week or was receiving various types of public assistance (such as AFDC/TANF or food stamps) in a given month. As another example, we used self-reported crime data to determine the timing of arrests and used fertility information to determine the timing of births. We also constructed period-specific measures about the characteristics of each activity. For example, we constructed measures of sample members' earnings, number of hours worked or in school, degrees received, public assistance benefit levels, and types of arrest charges over a given period.

Outcome measures were defined for the following periods: (1) each quarter; (2) months 1 to 12, 13 to 24, and 25 to 30; and (3) the entire 30-month period. The quarterly measures were used to examine changes in impact estimates over time and were constructed for key employment- and education-related outcomes. The measures for months 1 to 12, 13 to 24, and 25 to 30 were used to summarize activities during the "in-program" and "postprogram" periods for many outcomes. As described in Chapter IV, the first year after random assignment was a period of intensive Job Corps participation for those in the program group who enrolled in centers, and the second year was a period of still significant but less intensive Job Corps participation. The last 6 months during the 30-month period were largely a postprogram period, because most program group members were no longer enrolled in Job Corps.

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[6] A methodological appendix (Schochet, forthcoming) provides a more detailed discussion of the construction of outcome measures, including the treatment of missing values and outliers.

We also constructed outcome measures that summarized sample member experiences over the entire 30-month period. Impact estimates using these measures should *not* be interpreted as long-term effects of the program, because the postprogram period is relatively short for some program group members who enrolled in Job Corps. This is especially true for the employment and earnings outcomes, because impacts on these measures are expected to be negative during the in-program period, and most participants stay in Job Corps for a significant time.

Some outcome measures pertain only to the time of the interview. For example, the follow-up interviews gathered data about tobacco, alcohol, and illegal drug use in the past 30 days and obtained information on the respondent's highest grade completed, overall health status, address, and living arrangements at the time of the interview.

C. ANALYTIC METHODS

The random assignment design ensures that no systematic observable or unobservable differences between program and control group members existed at the point of random assignment, except for the opportunity to enroll in Job Corps. Thus, simple differences in the distributions of outcomes between program and control group members are unbiased estimates of program impacts for eligible applicants.

Two important points about the interpretation of these impact estimates warrant discussion. First, as noted earlier, these impact estimates represent the effects of Job Corps relative to other

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employment and training programs in the community, and not relative to no training. Thus, the impact estimates represent the *incremental* effect of Job Corps relative to other programs in which control group members participated. Consequently, in order to interpret the impact estimates, it is crucial to examine the employment and training experiences of control group members to understand the "counterfactual" for the evaluation.

Second, the comparison of the outcomes of all program and control group members yields *combined* impact estimates for the 73 percent of program group members who enrolled in Job Corps centers and the 27 percent who did not. Policymakers, however, are more concerned with the effect of Job Corps on those who enrolled in a center and received Job Corps services. This analysis is complicated by the fact that we do not know which control group members would have shown up at a center had they been in the program group. However, as discussed in this section, we can overcome this complication if we assume that Job Corps has no impact on eligible applicants who do not enroll in centers.

In this section, we discuss our analytic approach for estimating impacts per eligible applicant and per Job Corps participant only, for the full sample and for key population subgroups. In addition, we discuss how the results are presented and interpreted.

1. Estimating Impacts per Eligible Applicant

The estimates of Job Corps impacts per eligible applicant were obtained by computing differences in average outcomes between all program and control group members (that is, using a differences-in-means approach). This approach yields unbiased estimates of the effect of Job Corps for program applicants who were determined to be eligible for the program. The associated t-tests (for variable means) and chi-squared tests (for distributions of categorical variables) were used to test the statistical significance of the impact estimates. The analysis was conducted using the 11,787 youths (7,311 program group members and 4,476 control group members) who completed 30-month interviews. All figures were calculated using sample weights to account for the sample and survey designs and for the effects of interview nonresponse so that the estimates can be generalized to the intended study population. Standard errors of the estimates account for design effects due to unequal weighting of the data and to clustering caused by the selection of areas slated for in-person interviewing at baseline.[7]

We also estimated "regression-adjusted" impact estimates using multivariate models that control for other factors that affect the outcome measures. This approach increases the precision of the estimated program impacts and the power of significance tests relative to the differences-in-means approach. In addition, the use of multivariate models can adjust for any random residual differences in the observable baseline characteristics of program and control group members.

Obtaining unbiased impact estimates using the regression approach, however, is computationally difficult because of the study's complex sample and survey designs, which generated a large number of strata (weighting cells). As discussed in more detail in Schochet (forthcoming), the usual procedure of regressing outcomes on a program status indicator variable (which is 1 for program group members and 0 for control group members) and other explanatory variables can yield biased estimates of program impacts (that is, biased coefficient estimates on the program status indicator variable) because the estimates may be "weighted" incorrectly. Furthermore, estimating weighted regressions does not solve the problem (DuMouchel and Duncan 1983). To obtain unbiased impact estimates, separate regression-adjusted estimates must be obtained in each of the 48 weighting cells (many of which contain only a small number of sample members), and the weighted average of these 48 separate estimates must be calculated. Having small numbers of sample members in some weighting cells necessitates aggregating across weighting cells, which could introduce some bias if impacts differ across the weighting cells.

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[7] The report containing methodological appendixes (Schochet, forthcoming) describes the construction of sample weights and standard errors.

The results obtained using the differences-in-means approach and the regression approach are similar, and the same policy conclusions can be drawn from both sets of estimates (Schochet, forthcoming). We present the differences-in-means estimates in this report for several reasons. The gains in precision from the regression approach are small for most outcome measures and subgroups. In addition, we can be sure that the differences-in-means estimates are unbiased (because sample weights can be used in this context to account for the sample design and interview nonresponse) and are relatively precise because the samples are large. Finally, few differences existed in the average baseline characteristics of program and control group members, so controlling for these differences does not change the impact estimates materially.

We also present program and control group differences for some outcomes that are conditional on other outcomes. For example, we compared hourly wage rates and fringe benefits received on the most recent job for program and control group members who worked in months 25 to 30. As another example, we compared the financial support provided by program and control group members to their children who did not live with them. These estimates may not be unbiased estimates of program impacts, because they are based on potentially nonrandom subsets of program and control group members (that is, those who worked or were noncustodial parents). The baseline characteristics (both measured and unmeasured) of those in these subsets may have differed by research status because of potential program effects on the composition of youths in the subsets. However, these comparisons provide important insights into the differences between the outcomes of program and control group members.

2. Estimating Impacts per Job Corps Participant

Program impact estimates for program group members who enrolled in Job Corps--*participants*--were obtained by dividing the program impact estimates per eligible applicant by the proportion of program group members who enrolled (Bloom 1984). To illustrate how this works, we can express the impact of the Job Corps program per eligible applicant as a weighted average of the program impact for those eligible applicants who would enroll in Job Corps, given the chance, and the program impact for those eligible applicants who would not enroll, with weights p and $(1 - p)$, where p is the proportion of eligible applicants who enroll (73 percent).[8] We do not know which control group members would have enrolled if they had been assigned to the program group, or which control group members would not have enrolled. However, this information is not necessary if we assume that all impacts for the full program group were due to those who showed up at a center, and that *the impacts on no-shows are zero.* With this assumption, the impact per eligible applicant reduces to p times the impact per participant. Thus, the impact per participant can be computed by dividing the impact estimates based on *all* program and control group members by the proportion of program group members who actually enrolled in a center.[9]

The key assumption that makes this procedure work is that the program has no effect on no-shows. Although this assumption is reasonable, it is possible that the offer of a Job Corps slot does affect the behavior of eligible applicants who do not enroll at a center. For example, after being determined eligible for Job Corps, no-shows might alter their job search behaviors because they have the option of enrolling in Job Corps. In particular, reservation wages might increase relative to what they would have been if a youth did not have the opportunity to enroll in Job Corps. Although it is unlikely that the offer of a Job Corps slot without active participation will have an appreciable effect on long-term outcome measures, it may have an effect on job search and employment in the short term. We will explore these issues further in a separate report.

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[8] In mathematical terms, $I_E = p*I_S + (1-p)*I_{NS}$, where I_E is the impact on eligibles, I_S is the impact on those who showed up on a center (that is, the difference between the average outcomes of program group participants and control group members who would have participated if given the chance), and I_{NS} is the impact on no-shows (that is, the difference between the average outcomes of program group no-shows and control group members who would been no-shows if they were in the program group).

[9] The standard error of the impact estimate for participants was inflated to account for the estimation error in the show rate (Schochet, forthcoming).

The procedure to estimate impacts per participant can be extended to account for the 1.4 percent of control group members who enrolled in Job Corps centers (that is, for "crossovers"). However, these estimates are not reported, because, as a result of the very low crossover rate, they are similar to the unadjusted estimates, and because the estimates are slightly more difficult to interpret (Schochet, forthcoming).

3. Subgroup Analysis

Program impact estimates for the full sample may conceal important differences in impacts across subgroups of program participants. If impacts do exist overall, they might be heavily concentrated in or much larger for some subgroups. Conversely, if impacts do not exist overall, they might exist for some subgroups. If a subgroup is small, the impact on it might not be large enough to yield a statistically significant difference in the overall sample.

This report addresses two important questions about impacts for subgroups:

1. Is Job Corps more effective for some groups of youths defined by personal characteristics or experiences before program application than for other groups?
2. Are the residential and nonresidential components effective for the students they serve?

a. Subgroups Defined by Youth Characteristics

It is important to identify groups of Job Corps students who benefit from program participation, so that policymakers can improve program services and target them appropriately. In consultation with the study advisory panel (which included representatives of Job Corps), we identified groups of students whose backgrounds, training needs, and program experiences typically differ in important ways. The selected groups often enroll in different types of centers and program components, and they have a different mix of vocational skills and academic classroom training while enrolled.

Using baseline interview data, we estimated program impacts on seven sets of subgroups defined by youth characteristics at random assignment:[10]

1. ***Gender.*** The training needs and the barriers to successful employment of young women who enroll in Job Corps are different from those of young men who enroll. As discussed in Chapter II, the average characteristics of female students differ from those of male students (for example, female students tend to be older, to have completed high school, and to have children). In addition, female students are more likely to be nonresidential students and are less likely to be in CCC centers. Thus, in light of the different programmatic needs and program experiences of males and females, an important policy issue is the extent to which Job Corps is effectively serving each of these groups.

2. ***Age at Application to Job Corps.*** The broad age range Job Corps serves means that the program must serve adolescents and young adults together. This poses a significant challenge for the program, because the training needs and backgrounds of younger students differ from those of older students. For example, younger students tend to have lower education levels (and thus are much more likely to require education services in Job Corps), less work experience, and fewer children. In addition, younger students exhibit some characteristics (for example, higher arrest rates and incidence of drug use) that suggest that they may be more disadvantaged than older applicants. Moreover, findings from the process analysis reveal widespread concern among Job Corps staff that the younger students are often disruptive and harder to serve than the older students. Thus, an important policy objective is to assess whether Job Corps participation improves the outcomes of these relatively diverse groups. Separate impact estimates are

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[10] Appendix Table A.1 displays sample sizes for the subgroups.

presented for those (1) 16 and 17 years old, (2) 18 and 19 years old, and (3) 20 to 24 years old.[11]

3. ***Educational Attainment.*** Approximately 8 out of 10 Job Corps students lack a GED or high school diploma at the time of entry. Most students without a high school credential begin their Job Corps program with a balanced schedule of one-half academic course work and one-half vocational course work. These students do not normally focus primarily on their vocational trades until they receive their GEDs; hence, most receive intensive academic education while in the program. On the other hand, students with a high school credential usually complete their academic requirements quickly and move toward a full-time vocational schedule. In light of the differences in the mix of vocational and academic classroom experiences in Job Corps and in the characteristics of those with and without a high school credential, we present separate impact estimates for each group.

4. ***Presence of Children for Females.*** The barriers to successful employment for female Job Corps enrollees with children are particularly acute. At application to Job Corps, females with children (who represent about 30 percent of all female students) are highly dependent on public assistance (for example, about 70 percent of these mothers received AFDC/TANF benefits or were part of families that received these benefits in the previous year) and have lower earnings and employment rates than other students. Furthermore, these young mothers are much less likely to live with other adults than other students, suggesting that many lack adequate support systems. Many have problems establishing suitable child care arrangements. Consequently, an important policy issue is the extent to which Job Corps can increase employment and earnings and reduce the chances that these youth become reliant on public assistance.

   In addition, a large percentage of females with children are in the nonresidential component. For example, nearly 65 percent of females with children in our sample were designated for nonresidential slots, and nearly half of all nonresidential designees were females with children. Thus, policy concerns about the effectiveness of the nonresidential program and increasing the recruitment of young females are linked to the effectiveness of Job Corps in serving females with children. Thus, separate impact estimates are presented for females with and without children.

5. ***Arrest Experience.*** To be eligible for Job Corps, applicants must be free of behavioral problems that would prevent them from adjusting to the Job Corps standards of conduct. Job Corps seeks to offer youths who may have been in trouble with the law the opportunity to turn their lives around. On the other hand, an applicant cannot currently be under the control of the criminal or juvenile justice system. Furthermore, the program is not equipped to handle youths who pose a threat of violence to themselves

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[11] The age categories were defined in this way because the factors associated with enrolling in a center and graduating from the program were similar for program group members within each group (Gritz, forthcoming).

or others. Thus, youths with prior involvement with the criminal justice system are carefully screened by the OA agency and sometimes by the regional office.[12]

The baseline data indicate that over one-quarter of eligible applicants were ever arrested or charged with a delinquency or criminal complaint, and that about 5 percent were charged with serious crimes, such as aggravated assault, murder, robbery, or burglary. Consequently, an important policy question is the extent to which Job Corps can effectively serve those with previous problems with the law, especially under the new strict zero-tolerance (ZT) policies. In the analysis, we obtained separate impact estimates for those who were (1) never arrested, (2) ever arrested for nonserious crimes only, and (3) ever arrested for serious crimes.

6. ***Race and Ethnicity.*** The backgrounds of Job Corps students differ markedly by race and ethnicity. Whites are more likely than other groups to be male (67 percent, compared to about 56 percent for other groups). Whites tend to have had more work experience, even though the age distribution is similar by race and ethnicity. In addition, whites are less likely to have children, to have received public assistance in the prior year, or to be high school dropouts.

   Program experiences are also likely to differ by race and ethnicity. There are large differences in the racial and ethnic composition across regions (and across centers within regions), and Job Corps operations differ somewhat across regions. For example, about 60 percent of eligible applicants in Regions 2, 3, 4, and 5 are African American, whereas most youths in Regions 1, 7/8, and 10 are white. More than one-third of youths are Hispanic in Regions 2, 6, and 9. Furthermore, whites are much more likely to be in CCC slots and much less likely to be in the nonresidential component. Thus, differences in background characteristics and program experiences by race and ethnicity could lead to differences in program impacts across these groups. Four subgroups defined by race and ethnicity were used in the analysis: (1) white, non-Hispanic; (2) African American, non-Hispanic; (3) Hispanic; and (4) other (including American Indian, Alaskan Native, Asian, and Pacific Islander).[13]

7. ***Job Corps Application Date and the New Job Corps Policies.*** As discussed, in response to congressional concerns about the operation of the Job Corps program, new ZT policies were instituted in March 1995--during the sample intake period for the study. The process analysis found that the new policies had a profound positive effect

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[12] Findings from the process analysis indicate that nearly all OA counselors (accounting for 96 percent of applicants) require local criminal justice records of all applicants.

[13] Sample sizes for American Indians, Alaskan Natives, Asians, and Pacific Islanders were too small to support separate impact estimates for these groups.

> on behavior management and the general climate at centers.[14] Thus, to assess the extent to which the new policies had an effect on program impacts, we present separate impact estimates for those who applied to Job Corps before and after March 1, 1995.[15] Because the ZT policies are still in effect, the post-ZT estimates are more likely to be representative of the current Job Corps program.

We also estimated program impacts for finer subgroups formed by combining groups across these seven categories. This analysis was conducted to help disentangle the subgroup findings, because many of the subgroups are correlated with each other. For example, nearly all those 16 and 17 years old did not have a high school credential at random assignment, compared to 50 percent of those 20 or older. Thus, impact estimates for those without a high school credential are heavily weighted by the outcomes of the younger sample members. Consequently, we obtained separate impact estimates for the younger dropouts and the older dropouts to better understand the extent to which Job Corps helps those with low levels of education.

This finer subgroup analysis was often limited by small sample sizes that sometimes led to unstable results. However, the analysis provided important insights about the pattern of program effects across key subgroups.

We view the subgroups defined by age, gender, and the presence of children (for females) as particularly important (along with the results for residents and nonresidents). Thus, in the report, we usually emphasize impact findings for these subgroups more heavily than for other subgroups.

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[14] The policies, however, did not appear to have a significant effect on the characteristics of eligible applicants (Schochet 1998a).

[15] Program group members in the pre-ZT group who were in Job Corps after March 1, 1995, were subject to the new rules. Thus, impact estimates pertaining to the pre-ZT period are somewhat contaminated. Furthermore, program experiences could differ by season, and because of the limited sample intake period, the data are not available to compare impacts for those in pre-ZT and post-ZT groups who were recruited during the same time of year. Thus, differences in the pre-ZT and post-ZT impact estimates are only suggestive of the effects of the new policies.

However, the emphasis we place on various subgroups varies somewhat, depending on the outcome measure and our hypotheses about the extent and nature of program impacts. For example, when examining impacts on education and training outcomes, we emphasize subgroups defined by age and high school credential status at baseline, because of differences in the educational needs and the expected academic classroom and vocational training experiences of both program and control group members across these subgroups. Similarly, we focus on subgroups defined by gender and the presence of children (but not age) when examining impacts on the receipt of public assistance benefits, because of large differences in the types and amounts of assistance that these gender groups typically receive. As a final example, we focus on age and gender subgroups when examining impacts on crime-related outcomes, because of subgroup differences in the level of involvement with the criminal justice system, but we do not focus on the results for females with and without children, because we had no reason to believe that crime-related impacts would differ for these two groups of females.

Estimation Issues. The random assignment design ensures that unbiased impact estimates for a subgroup defined by a youth characteristic can be obtained by comparing the distribution of outcomes of program and control group members in that subgroup. Thus, for example, impact estimates for males were obtained by comparing the outcomes of male program and control group members. Similarly, impacts estimates for those without a high school credential were computed by comparing the outcomes of program and control group members without a high school credential at random assignment.

Standard statistical tests were used to gauge the statistical significance of the subgroup impact estimates. In addition, we conducted statistical tests to determine whether program impacts were similar across levels of a subgroup. For example, we tested the hypothesis that program effects were similar for males and females and were similar across the three age groups.

b. Impacts for Residents and Nonresidents

Residential living is the component that distinguishes Job Corps from other publicly funded employment and training programs. During our site visits to centers as part of the process analysis, staff stressed the importance of the residential component as central to helping students become more employable. Some staff believe that it is even more important than vocational training for improving the long-term outcomes of students. However, staff also stressed that the nonresidential component is important because it serves a type of student different from those in the residential component, and because nonresidents, who have outside commitments to families or children, might not enroll in Job Corps if a nonresidential option were not available.[16] About 12 percent of enrollees in the study program group were nonresidents.

The process analysis found that nonresidential students are fully integrated into the academic and vocational components of Job Corps. However, the participation of many nonresidential students in other activities is limited, often because of family responsibilities. For example, nonresidential students are less involved in dormitory life, student government, and recreational activities. Thus, nonresidential students have a program experience very different from that of students who live on center.

The estimation of separate impacts for those in the residential and nonresidential components is of considerable policy interest for two reasons. First, as discussed, the residential and nonresidential components serve students with different characteristics and needs, and program experiences differ by residential status. Second, previous studies (for example, the JTPA and Jobstart evaluations) have found that disadvantaged youths do not benefit significantly from participation in training programs that offer basic education and job-training services in a nonresidential setting. Thus, there is great interest in measuring impacts of Job Corps on nonresidential students, to help guide design decisions not only about Job Corps, but also about other programs to support youths' labor market participation.

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[16] Most centers have some nonresidential slots, and about 25 percent of centers have at least 20 percent of their slots reserved for nonresidential students.

Estimation Issues. The impacts of the residential and nonresidential components were estimated using data on OA counselor predictions as to whether sample members would be assigned to a residential or a nonresidential slot. As part of the application process, OA counselors filled in this information on a special form (an ETA-652 Supplement form) developed for the study. OA staff sent these forms to MPR for those youths determined to be eligible for the program, and MPR entered the information into the study's database.

The anticipated residential status information is available for both program *and* control group members because it was collected prior to random assignment. Thus, the impacts of the residential component were estimated by comparing the distribution of outcomes of program group members designated for a residential slot with those of control group members designated for a residential slot. Similarly, the impacts of the nonresidential component were estimated by comparing the experiences of program and control group members designated for nonresidential slots. Standard statistical tests were used to gauge the statistical significance of these impact estimates.

We believe that the analysis produced reliable estimates of program impacts for the residential and nonresidential components because the anticipated residential status information is available for all sample members and matches actual residential status very closely. Because it was a key data item required for random assignment, the anticipated residential status information is available for all sample members. If the information was missing, MPR contacted OA staff and did not perform random assignment until it was provided.

OA counselor projections of residential status proved to be very accurate (Schochet 1998b). Using Student Pay, Allotment, and Management Information System (SPAMIS) information on program group members who enrolled in centers, we found that about 98 percent of program group enrollees designated for residential slots actually enrolled in residential slots, and about 88 percent of program group enrollees designated for nonresidential slots actually enrolled in nonresidential slots.[17] Moreover, the accuracy of the predictions was high across all key subgroups. Thus, the experiences of those designated for residential (nonresidential) slots were largely representative of the experiences of actual residents (nonresidents), and vice versa.[18]

An important (yet subtle) point about the interpretation of the impact findings for residents is that they tell us about the effectiveness of the residential component *for youths who are typically assigned to residential slots* (because the results were obtained by comparing the outcomes of program and control group members who were suitable for the residential component). Similarly, the impact estimates for nonresidents tell us about the effectiveness of the nonresidential component

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[17] In addition, a large proportion of program group members who enrolled in a particular component were designated for that component. For example, more than 98 percent of all enrollees in residential slots were designated for these slots, and about 84 percent of those in nonresidential slots were designated for nonresidential slots.

[18] We attempted to improve the accuracy of the "predictions" by using multivariate techniques. We estimated logit models where the probability that a program group enrollee was assigned to the residential component was regressed on the predicted assignment measure and other explanatory variables created using baseline interview data. The parameter estimates from these models were then used to create predicted probabilities for *all* control group and program members. The sample was then split into those likely to be residents (those with high predicted probabilities) and those likely to be nonresidents (those with low predicted probabilities). The analysis was then conducted using these groups. The models did not increase the accuracy of the predictions appreciably, and the results using the multivariate procedure were similar to those obtained using the anticipated assignment information only.

for youths who are typically assigned to nonresidential slots. The results cannot necessarily be used to measure the effectiveness of each component for the *average* Job Corps student.[19] Nor can the results be used to assess how a youth in one component would fare in the other one.

Our analysis findings suggest that there are important differences in the impact estimates for residents and nonresidents by gender and, for females, by the presence of children. Thus, we focus on these finer subgroup results in the report.

4. Presentation of Results

We present analysis findings using a series of figures, charts, and tables. The tables (which form the basis for the figures and charts) display the following seven pieces of information for each outcome measure:

1. ***The Control Group Mean for Eligible Applicants.*** This figure was calculated using the entire control group and represents the mean outcome of program group members if they had not been offered a Job Corps slot.

2. ***The Program Group Mean for Eligible Applicants.*** This mean was calculated using the full program group (participants and no-shows).

3. ***The Impact Estimate per Eligible Applicant.*** This estimate is the difference between the mean outcomes for program and control group members.

4. ***The Mean for Program Group Members Who Participated in Job Corps.*** This mean was used to examine the outcomes of the 73 percent of program group members who enrolled in Job Corps.

5. ***The Impact Estimate per Program Participant.*** This estimate is the impact estimate per eligible applicant divided by the participation rate in Job Corps. The participation rate differed across subgroups (as discussed in Chapter IV).

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[19] To address this question effectively, we would have had to randomly assign each youth in the study population to the residential or nonresidential component. This design option was rejected because it would have introduced an unacceptable degree of intrusion into normal program operations.

6. ***The Percentage Gain Due to Participation in Jcb Corps.*** This estimate represents the percentage change in the mean outcome for participants relative to what it would have been if the participants had not enrolled in Job Corps. The figure is estimated by dividing the impact estimate per program participant by an estimate of the mean for control group members who would have enrolled in Job Corps, given the chance. This control group mean was estimated as the difference between the mean for program group participants and the impact estimate per participant.

7. ***An Indication of the Statistical Significance of the Impact Estimates.*** Two-tailed statistical tests were performed to test the null hypothesis of no program impact. We indicate whether the null hypothesis was rejected (that is, whether the impact is statistically significant) at the 1 percent, 5 percent, or 10 percent level. Standard errors used in these test statistics were adjusted for design effects due to unequal weighting and clustering of the in-person sample at baseline. The standard errors of the estimated impacts per participant were also inflated to account for the estimation error in the Job Corps enrollment rate. For the subgroup analysis, we also indicate whether differences in impacts across subgroups are statistically significant.

Policymakers are likely to be more interested in the effects of Job Corps for program participants than for eligible applicants. However, we present findings for eligible applicants in addition to those for program participants, for two main reasons. First, random assignment was performed at the point that applicants were determined to be eligible for the program; hence, the average characteristics of eligible applicants in the program and control groups were equivalent at random assignment. Thus, impact estimates per eligible applicant are pure experimental estimates. Impacts per participant, however, were obtained from the impact estimates per eligible applicant under the assumption that the program has no effect on no-shows. While this assumption is reasonable, it is difficult to test. Thus, we cannot place as much confidence in these estimates as we can in the impact estimates per eligible applicant.

Second, an important analysis objective is to understand the counterfactual for the study by examining the experiences of control group members. This analysis is straightforward using the entire control group because we can observe their outcomes. Furthermore, we can be confident that these outcomes represent the true counterfactual for the full program group. This analysis is more complicated, however, if we focus on program participants only, because we cannot directly observe the outcomes of those in the control group who would have enrolled in Job Corps had they been given the chance. The average outcomes of these control group members can be estimated as the difference between the average outcomes of program group members who enrolled in Job Corps and the impact estimates per participant. However, these estimated control group means are based on assumptions about the effects of the program on no-shows. Thus, we cannot be sure that they represent the true outcomes of program group enrollees if they had not participated in Job Corps. Consequently, we use the entire control group of eligible applicants to describe the counterfactual for the evaluation, given the importance of this analysis.

5. Interpretation of Estimates

The short-term impact analysis generated impact estimates on a large number of outcome measures and for many subgroups. We conducted formal statistical tests to determine whether program and control group differences existed for each outcome measure. However, an important challenge for the evaluation is to interpret the large number of impact estimates to assess whether Job Corps makes a difference and for whom it works.

The initial guide we use to determine whether Job Corps has an impact on a particular outcome measure is the p-value associated with the t-statistic or chi-squared statistic for the null hypothesis of no program impact on that outcome measure. However, more stringent criteria than the p-values are needed to identify "true" program impacts, because we are likely to produce significant test statistics by chance (even when impacts may not exist) as a result of the large number of outcomes and subgroups under investigation. For example, in tests of program and control group differences for statistical significance at the 5 percent level, 1 out of 20 independent tests will be significant when in fact no real difference exists.

Three additional criteria also guide us in identifying potential program impacts:

1. Examine the magnitude of the significant impact estimates to determine whether the differences are large enough to be policy relevant. This is important, as small impacts might be statistically significant because of large sample sizes. For example, for a control group mean of 50 percent, an impact is statistically significant if it is about 2 percentage points or less.

2. Categorize outcomes and subgroups, and look for patterns of significant impacts within and across the categories at each follow-up point and over time. That is, we check that the sign and magnitude of the impact estimates are similar for related outcome measures and subgroups.

3. Determine whether the sign and magnitude of the impact estimates are robust to alternative model specifications and estimation techniques. For example, we conducted sensitivity tests by removing outlier observations, employed different weighting schemes, and estimated impacts using the differences-in-means and regression approaches.

It is important to reemphasize that we view the impact results as short-term impacts, because, as described in the next chapter, the postprogram period is relatively short for some program group members who enrolled in Job Corps. Furthermore, the subgroup results should be interpreted with caution, because the average postprogram period differs somewhat by subgroup as a result of subgroup differences in the average time program group enrollees stayed in the program. Thus, different patterns of findings may emerge using longer-term 48-month follow-up interview data.

Finally, the impact estimates represent the effects of Job Corps for eligible applicants who applied to the program between November 1994 and December 1995. Since most program group members who enrolled in Job Corps were in centers in 1995 and 1996, the estimates may not be representative of the effectiveness of the program as it operates today.

IV. JOB CORPS EXPERIENCES

Job Corps staff have implemented a well-developed program model throughout the country. Both the model and the fidelity of its implementation are documented in a separate process analysis report (Johnson et al. 1999). For understanding of the impacts that the program may have had on employment and related outcomes of participants, this chapter describes the Job Corps experiences of the program group using interview data. Here we note whether program group members received services and then describe the intensity and types of those services.

This chapter answers four broad questions about program participation:

1. Did those who were randomly assigned to the Job Corps program group actually participate?
2. When did most Job Corps participation occur?
3. What were the experiences in the program of those who enrolled?
4. Do the Job Corps experiences of subgroups of interest to the study differ in important ways?

The answers to these questions led to the following conclusions.

First, the program group received extensive Job Corps services. Of those who were assigned to the program group, 73 percent enrolled in Job Corps, and 72 percent of these enrollees (just over half the program group) participated in Job Corps for at least three months. The average period of participation per enrollee was eight months.

Second, participants enrolled quickly, and most participation occurred during the first 12 months after random assignment. Individual experiences, and consequently the length of the postprogram observation period, varied greatly. The average participant in the program group enrolled in Job

Corps within 1.5 months after random assignment and spent 8 months in the program, which resulted in an average postprogram period of just over 20 months. However, the postprogram period was less than one year for 15 percent of participants, but was at least two years for about 39 percent of participants.

Third, enrollees participated extensively in the core Job Corps activities. Most took both academic classes and vocational training, although the relative emphasis differed among individual enrollees. Also, most enrollees participated in the many socialization activities such as parenting, education, health education, social skills, training, and cultural awareness classes. Many enrollees, however, reported that they did not receive job placement assistance from the program.

Fourth, while many subgroups had different experiences in Job Corps, the differences were small. The mix of academic and vocational training a student received depended on whether the youth had already received a high school credential (GED or diploma) before program entry. Students with no credential generally took both academic classes and spent less time in academic classes. High school graduates were more likely to focus on vocational training. Nonresidential students (especially females with children) had somewhat lower enrollment rates than residential students. Once in Job Corps, however, the residential and nonresidential students had similar amounts, types, and intensity of training, as well as similar exposure to the other program components. The many other subgroup differences were small, and overall each group's experience was consistent with the conclusions drawn above for the program group as a whole.

An important implication of the finding on the timing of participation is that impacts based on interview data covering the 30 months after random assignment (presented later in this report) must be considered short term, as it probably takes time for former participants to readjust to their home community and to find a job. For some enrollees, the period of participation in Job Corps was longer than average and the postprogram period shorter, so impacts on employment-related outcomes measured late in the 30-month period may understate the eventual impacts on these outcomes. The 48-month follow-up interview data will provide a more reliable indication of the long-term, postprogram benefits of Job Corps.

The rest of this chapter presents the data supporting these findings. The first section discusses rates and timing of enrollment in Job Corps for those assigned to the program group. The second section discusses the academic classroom and vocational training experiences of enrollees. Finally, we discuss the enrollees' participation in other Job Corps activities, such as social skills training and parenting classes. Appendix B presents supplementary tables.

The extent, duration, and intensity of participation may have differed for different groups of students. To identify possible differences, we present tabulations for key subgroups defined by gender and parental status (males, females, and females with children) and for three groups defined by age (16 and 17 years old, 18 and 19 years old, and 20 to 24 years old). Appendix B presents selected data on the program experiences of other important subgroups.

A. JOB CORPS PARTICIPATION AMONG ELIGIBLE APPLICANTS IN THE PROGRAM GROUP

1. Enrollment Rates

The study's program and control groups were established at the point that each youth had been determined to be eligible for Job Corps.[1] An applicant found eligible was assigned to a specific center, and an outreach and admissions (OA) counselor arranged for transportation. However, between the time that eligibility was established and the time that transportation was arranged, some applicants decided not to enroll. Consequently, not everyone who was assigned to the Job Corps program group actually went to a center.

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[1] Eligibility for Job Corps depends on several factors, including age (16 to 24 years), economic disadvantage, a home environment in which the youth cannot benefit from other training programs, good health, ability to conform to Job Corps standards of conduct, and the capability and aspirations to succeed in Job Corps. Eligibility determination can involve gathering and assessing extensive information about these eligibility factors (see Chapter II and Johnson et al. 1999).

The overall enrollment rate in Job Corps was 73 percent (Table IV.1). This self-reported enrollment rate is practically identical to that calculated from Job Corps administrative records (Gritz and Johnson, forthcoming). Most students (92 percent) attended just one center, although 8 percent transferred to another center for regular or advanced training.

Enrollment rates over the 30-month follow-up period differed by subgroup (Table IV.1). Somewhat larger percentages of younger applicants than older applicants enrolled (79 percent compared to 68 percent), and larger percentages of males enrolled than females (75 percent compared to 70 percent). Female applicants with children at baseline had the lowest enrollment rate (64 percent). Rates of participation were somewhat lower for students who were identified at intake as likely nonresidential students than for residential students, 65 percent compared to 74 percent (Table B.5). Furthermore, this relationship between rates of participation for residential and nonresidential students is observed for males, females, and females with children in each residential group.

2. Timing of Job Corps Participation

Two aspects of the timing of Job Corps participation are important for the interpretation of program impacts. First, it is useful to know *how long* participants spent in the program, because this is an important measure of *exposure* to the program and of the extent to which program group members invested in their future earning capacity. On the other hand, time spent in the program is time when students probably would have worked, and thus, they earned less than they would have if they had not participated.

TABLE IV.1

ENROLLMENT IN JOB CORPS, TIMING OF ENROLLMENT, AND MONTHS OF PARTICIPATION FOR THE PROGRAM GROUP
(Percentages)

		Gender			Age		
	Total	All Males	All Females	Females with Children	16 to 17	18 to 19	20 to 24
Enrolled in a Job Corps Center	72.9	75.3	69.5	63.6	78.6	70.2	67.5
Number of Centers Attended							
0	27.2	24.9	30.6	36.6	21.6	29.9	32.6
1	66.7	68.5	64.1	58.8	72.4	63.5	61.7
2	5.8	6.3	5.2	4.6	5.8	6.4	5.2
3	0.3	0.4	0.1	0.1	0.2	0.2	0.4
Months Between Random Assignment and Center Enrollment[a]							
Less than 0.5	29.2	28.1	31.0	33.8	30.1	27.8	29.3
0.5 to 1	35.5	35.2	36.0	29.4	35.0	36.1	35.9
1 to 3	26.7	27.5	25.4	27.2	26.7	27.3	25.8
3 to 6	4.2	4.9	3.2	2.8	3.9	4.5	4.6
6 or more	4.3	4.3	4.4	6.8	4.3	4.4	4.4
(Average months)	1.5	1.5	1.5	1.8	1.5	1.6	1.5
Months Enrolled[a]							
Less than 1	8.8	9.1	8.3	8.1	8.6	9.5	8.3
1 to 3	19.0	20.0	17.6	20.1	21.7	18.0	15.6
3 to 6	18.6	19.0	17.9	19.0	20.0	17.5	17.3
6 to 9	17.3	16.8	18.0	18.3	17.1	18.6	15.9
9 to 12	13.0	12.9	13.2	12.6	11.7	13.6	14.6
12 to 18	14.5	13.6	15.8	14.8	14.0	14.1	15.8
18 or more	8.8	8.6	9.2	7.1	6.8	8.8	12.4
(Average months)	8.0	7.7	8.3	7.8	7.4	8.0	9.0
Months Between Date Left Job Corps and 30 Months After Random Assignment[a]							
Less than 6	6.8	6.6	7.0	6.9	5.8	7.1	8.0
6 to 12	8.2	8.0	8.5	7.7	7.8	7.4	9.7
12 to 18	18.2	18.1	18.4	17.8	17.7	17.9	19.6
18 to 24	28.0	27.1	29.4	29.1	26.7	29.7	28.2
24 or more	38.8	40.2	36.7	38.5	42.1	37.8	34.4
(Average months)	20.0	20.2	19.8	20.0	20.5	20.1	19.2
Enrolled at 30 Months After Random Assignment	2.0	1.9	2.1	1.5	1.9	2.0	2.0
Sample Size[a]	**5,246**	**2,989**	**2,257**	**666**	**2,286**	**1,598**	**1,362**

TABLE IV.1 *(continued)*

SOURCE: 12- and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: Data pertain to program group members in the research sample. All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse.

[a] Data pertain to program group members who enrolled in a Job Corps center during the 30 months after random assignment.

Second, it is important to know *when participation ended* in order to interpret the impacts on employment, earnings, and related outcomes. One hypothesis of this study is that, for key outcomes like employment and earnings, negative impacts during the in-program period will be offset by positive impacts in the postprogram period. Because Job Corps uses "open-entry" and "open-exit" instruction, the length of participation varies for each student, and no fixed "in-program" period can be identified for all students. Furthermore, waiting times until youths enrolled differed across centers. Thus, impacts defined over a specific time during the 30-month follow-up period are based on some program group members who were still enrolled in Job Corps, some who had been out of Job Corps for a short time, and some who had been out for a longer time. Data on the timing of participation help us identify "in-program" and "postprogram" periods and underscore the need for caution when interpreting impacts over 30 months.

Program group members typically enrolled in Job Corps soon after random assignment (Table IV.1). The average enrollee waited 1.5 months, or just over six weeks, to be enrolled in a Job Corps center, although nearly two-thirds of those who enrolled did so in the first month, and only four percent enrolled more than six months after random assignment.[2]

Once in Job Corps, enrollees participated for about eight months on average, although the period of participation varied considerably (Table IV.1). About 28 percent of all enrollees participated less than three months, and nearly a quarter participated for over a year. Differences across subgroups in average enrollment rates, duration of participation, and length of the follow-up period were generally quite small (Tables IV.1, B.5, and B.6).

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[2] This statistic and all others in the rest of this chapter, except where noted, refer to Job Corps enrollees only. They do not include the 27 percent of program group members who never enrolled in the program.

Wide variations in the duration of participation in Job Corps resulted in a correspondingly wide distribution in how much of the 30-month follow-up period was actually a postprogram period. The average postprogram period for enrollees was 20 months (Table IV.1).[3] Almost 7 percent of enrollees were out of Job Corps for less than six months, and just over 15 percent were out less than one year. However, almost 40 percent of enrollees were out for more than two years. Because enrollees varied so much in the amount of time observed after Job Corps, and because a substantial fraction had a short postprogram observation period, the 30-month employment and earnings results described in Chapter VI should be interpreted as short-term impacts. Furthermore, the modest differences in the period of participation across different subgroups may have contributed to some of the differences in impacts for subgroups presented later in this report.

Rates of participation by quarter reveal patterns of participation over time that are useful for interpreting the impact findings. Figure IV.1 shows the fraction of program group members (including the no-shows) who participated in Job Corps during each quarter, measured as 13-week intervals starting from each sample member's date of random assignment.[4] (Table B.1 shows data by gender and age.) The participation rate declined from a peak of 67 percent in the first quarter after random assignment to 22 percent in the fifth quarter (beginning of the second year) and 5 percent in the ninth quarter (beginning of the third year). By the end of the 30-month period, almost all participants had left Job Corps. Only two percent of the program group (three percent of enrollees) were in Job Corps in the final week of the 30-month follow-up period.

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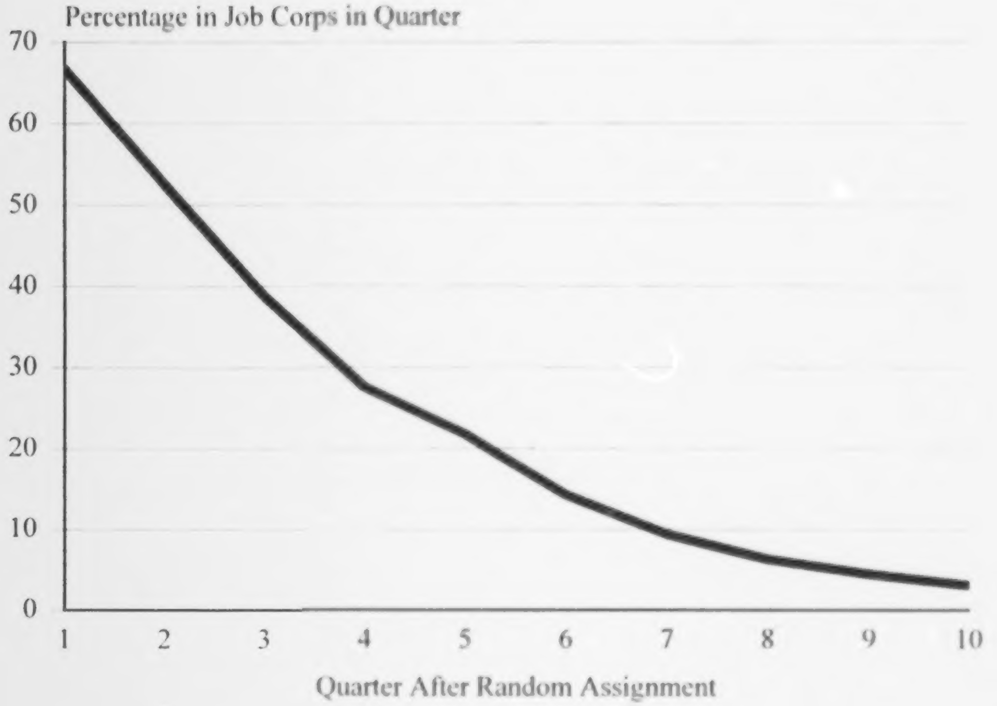
[3] The sum of months before, during, and after Job Corps do not add to 30 months exactly. This is because average length of stay does not include time spent in between spells in Job Corps, for those who left and reentered the program.

[4] Note that here and throughout the report, quarterly statistics are based on 13-week periods beginning from each enrollee's date of random assignment and thus do not correspond to fixed calendar periods.

FIGURE IV.1

JOB CORPS PARTICIPATION RATES FOR THE FULL PROGRAM GROUP, BY QUARTER



Source: 12-month and 30-month follow-up interviews.

Based on these broad patterns of participation, we interpret the period from quarters 1 to 4 (months 1 to 12) as largely an "in-program" period. To be sure, some participants left Job Corps near the beginning of this period, and a few had not yet started their training by the end of it. Yet on average just less than half the sample were participating in each quarter. The period from quarters 5 to 8 (months 13 to 24) was a period of transition, in which smaller yet still substantial fractions of the program group were engaged in Job Corps training. The final two quarters (months 25 to 30) were a postprogram period for most students, although, as noted, a small minority continued to participate in Job Corps. The use of these in-program, transition, and postprogram periods provides a framework for understanding the time profiles of employment and earnings and related impacts.

B. PARTICIPATION IN JOB CORPS ACADEMIC INSTRUCTION AND VOCATIONAL TRAINING

As the program design intends, a large majority of Job Corps participants (77 percent) took both academic classes and vocational training (Table IV.2). Overall, 82 percent of enrollees reported taking academic classes and 88 percent received vocational training. These patterns are similar for males and females and for younger and older students. The average enrollee reported receiving 1,039 hours of academic and vocational instruction.[5] The average number of weeks that an enrollee participated in academic classes or vocational training (or both) was about 30. A typical high school student receives approximately 1,080 hours of instruction during a school year. Thus, Job Corps provides approximately the equivalent classroom instruction of one year in school.

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[5] This is slightly smaller than the sum of average hours in academic classes and vocational training reported below (1,099), because the estimate of total hours assumes that Job Corps participants did not spend more than 40 hours per week in academic classes and vocational training activities. Respondents may have reported more than 40 hours in some weeks if they counted the same course as both academic and vocational or included time spent in additional classes, such as those for parenting, social skills, or health education.

TABLE IV.2

COMBINED ACADEMIC AND VOCATIONAL TRAINING PARTICIPATION MEASURES FOR PROGRAM GROUP ENROLLEES

(Percentages)

		Gender			Age		
	Total	All Males	All Females	Females with Children	16 to 17	18 to 19	20 to 24
Participation in Activity							
Took both academic and vocational	76.9	77.7	75.6	71.5	83.4	74.7	67.9
Took academic classes only	5.4	5.4	5.5	6.4	5.4	5.6	5.2
Took vocational training only	11.6	11.3	12.0	13.8	5.4	13.3	20.4
Took neither	6.2	5.6	7.0	8.3	5.8	6.4	6.6
Total Hours in Academic Classes and Vocational Training							
0	6.8	6.2	7.6	9.0	6.4	7.0	7.3
1 to 100	5.3	6.0	4.1	3.6	4.9	5.7	5.4
100 to 250	11.3	11.6	10.8	12.6	13.0	10.6	9.2
250 to 500	14.7	14.4	15.1	17.4	15.0	14.8	14.0
500 to 1,000	20.7	20.7	20.7	19.9	21.9	21.4	17.7
More than 1,000	41.3	41.0	41.7	37.5	38.8	40.6	46.4
(Average hours)	1,039.1	1,035.3	1,044.8	924.6	989.6	1,020.2	1,149.3
Number of Weeks Took Academic Classes or Vocational Training							
0	6.8	6.2	7.6	9.0	6.4	7.0	7.3
4 or less	6.7	7.6	5.5	4.7	6.6	7.3	6.3
5 to 13	20.5	20.8	19.9	23.0	22.8	19.7	17.3
13 to 26	19.8	20.0	19.4	18.6	20.9	19.4	18.3
26 to 39	17.1	16.2	18.5	18.9	16.8	18.4	16.2
39 to 52	12.2	12.1	12.3	11.6	11.0	12.4	14.0
52 to 78	11.4	11.6	11.1	9.9	11.0	10.5	13.2
More than 78	5.5	5.5	5.7	4.3	4.6	5.4	7.4
(Average weeks)	29.7	29.4	30.1	27.8	28.2	29.4	32.6
Sample Size	**5,246**	**2,989**	**2,257**	**666**	**2,286**	**1,598**	**1,362**

SOURCE: 12- and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: Data pertain to program group members in the research sample. All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse.

A few students took only academic classes (5 percent), and a few took only vocational training (12 percent). Most of these situations were students who participated in Job Corps for a short period, because all students eventually take vocational training and all eventually take a few required academic classes even if they already have a high school credential and solid basic skills. Some students who already had a high school credential and were able to concentrate on vocational training may not have remembered the few academic classes that they took or may not have thought about these as academic classes.[6] A small fraction (6 percent) did not participate in either academic or vocational training. These were students who left Job Corps before the end of orientation, which typically lasts two weeks.[7]

Job Corps enrollees received a substantial amount of academic instruction, averaging over 428 hours over 20 weeks (Table IV.3). Mathematics was the most common subject taken: 61 percent of all students said they took it. Just under half reported taking reading. GED and high school class together were mentioned by just over half of all students. Most other subjects asked about were reported by 13 to 26 percent of all students. Just three percent of students said they took ESL instruction.

A somewhat higher proportion of students reported taking vocational training (88 percent, Table IV.4) than reported taking academic instruction (82 percent, Table IV.3). Students also spent on average nearly 27 weeks in vocational training and received 671 hours of vocational instruction. The great amount of time spent in vocational training is consistent with Job Corps's practice of allowing

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[6] Among students who reported only academic classes, nearly 30 percent reported participating in Job Corps for less than one month, and another 45 percent participated for one to three months. Among students who reported taking only vocational training, the distribution of length of stay was more like that for those who took both academic classes and vocational training.

[7] Three-fourths of enrollees who reported taking neither vocational training nor academic classes were enrolled in Job Corps for less than one month.

TABLE IV.3

ACADEMIC EXPERIENCES IN JOB CORPS FOR PROGRAM GROUP ENROLLEES
(Percentages)

		Gender			Age		
	Total	All Males	All Females	Females with Children	16 to 17	18 to 19	20 to 24
Took Academic Classes	82.3	83.1	81.1	77.9	88.9	80.4	73.1
Total Hours in Academic Classes							
0	19.5	18.9	20.5	23.6	12.8	21.2	29.2
0 to 100	14.3	15.5	12.5	12.1	14.0	15.7	13.2
100 to 250	18.8	18.6	19.1	22.8	19.4	19.5	16.7
250 to 500	18.5	18.5	18.4	13.8	21.7	17.2	14.4
500 to 1,000	17.1	17.2	16.9	16.1	19.9	15.9	13.7
More than 1,000	11.9	11.4	12.7	11.6	12.2	10.6	12.9
(Average hours)	428.1	417.3	444.8	393.2	465.2	388.7	411.6
Number of Weeks Took Academic Classes							
0	18.9	18.1	20.1	23.2	12.0	20.8	28.8
4 or less	9.4	10.2	8.3	7.5	8.9	10.9	8.5
5 to 13	24.5	24.4	24.6	27.2	26.5	24.6	20.8
13 to 26	19.7	19.6	19.9	18.6	22.0	19.1	16.6
26 to 39	11.3	11.1	11.7	10.1	13.3	10.8	8.6
39 to 52	7.1	7.5	6.5	5.9	8.0	5.5	7.4
52 to 78	6.2	6.2	6.1	6.1	6.6	5.7	6.0
More than 78	2.9	2.9	2.9	1.4	2.8	2.7	3.3
(Average weeks)	19.7	19.8	19.6	17.4	21.6	18.2	18.3
Academic Subjects Taken							
Reading	45.2	45.9	44.1	40.7	50.7	41.7	39.7
Writing	25.7	25.6	25.8	21.8	26.5	24.6	25.5
English language skills	22.6	24.7	19.3	17.7	26.3	19.9	19.2
ESL	3.2	3.0	3.4	1.3	1.9	2.3	6.5
GED	47.7	48.8	46.0	44.5	57.4	46.1	32.3
High school	3.4	3.5	3.4	2.5	3.9	3.0	3.2
Mathematics	60.5	60.9	59.8	56.0	65.5	58.1	54.5
Science	13.2	14.8	10.8	6.5	17.9	11.3	7.3
Other	22.0	22.8	20.8	20.4	24.0	20.2	20.2
Sample Size	**5,246**	**2,989**	**2,257**	**666**	**2,286**	**1,598**	**1,362**

SOURCE: 12- and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: Data pertain to program group members in the research sample. All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse.

TABLE IV.4

VOCATIONAL TRAINING EXPERIENCES IN JOB CORPS FOR PROGRAM GROUP ENROLLEES
(Percentages)

		Gender			Age		
	Total	All Males	All Females	Females with Children	16 to 17	18 to 19	20 to 24
Took Vocational Training	88.4	89.0	87.6	85.3	88.8	88.0	88.3
Total Hours in Vocational Training							
0	13.1	12.7	13.6	16.2	12.8	13.3	13.2
1 to 100	10.4	10.4	10.4	11.2	11.7	11.0	7.4
100 to 250	13.7	14.1	13.2	15.3	15.8	12.0	12.2
250 to 500	16.6	16.5	16.7	16.0	17.8	16.5	14.5
500 to 1,000	21.4	21.6	21.2	19.9	21.8	20.9	21.6
More than 1,000	24.8	24.7	24.9	21.5	20.1	26.3	31.1
(Average hours)	671.3	670.2	673.1	587.3	580.6	693.2	803.0
Number of Weeks Took Vocational Training							
0	12.3	11.8	13.1	15.6	12.0	12.7	12.4
4 or less	6.3	6.8	5.6	4.6	6.5	7.0	5.2
5 to 13	18.9	19.4	18.0	21.6	21.1	18.0	16.0
13 to 26	19.9	19.4	20.7	19.4	21.1	19.1	19.0
26 to 39	16.7	16.1	17.5	17.9	15.8	18.4	16.1
39 to 52	11.4	11.6	11.1	9.5	10.5	11.1	13.4
52 to 78	10.0	10.4	9.3	8.1	9.4	9.2	11.9
More than 78	4.5	4.5	4.6	3.4	3.7	4.5	6.0
(Average weeks)	27.0	27.1	26.8	24.0	25.4	26.8	29.9
Vocational Trades Taken							
Clerical	21.3	11.4	36.7	38.4	18.0	21.9	26.4
Health	14.6	5.7	28.7	28.2	13.6	14.2	17.0
Auto mechanics and repair, heavy equipment operator	7.3	10.7	2.1	1.2	8.2	6.1	7.5
Welding	7.0	9.7	2.7	1.7	8.0	6.1	6.2
Electrical	3.1	4.6	0.7	0.3	3.4	2.8	2.9
Other construction trades	21.3	29.6	8.3	5.1	25.5	20.0	15.6
Food service	10.2	9.4	11.5	8.5	12.3	9.9	7.0
Electronics	0.8	1.1	0.3	0.4	0.5	1.0	1.0
Other	21.3	24.3	16.5	13.4	19.8	23.2	21.5
Schedule of Classes							
Every week	56.3	50.7	65.1	65.7	48.9	52.9	65.8
Alternate weeks	41.9	47.4	33.3	33.4	49.7	38.7	31.9
Other	1.8	1.9	1.6	0.9	1.3	2.1	2.2
Sample Size	**5,246**	**2,989**	**2,257**	**666**	**2,286**	**1,598**	**1,362**

TABLE IV.4 *(continued)*

SOURCE: 12- and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: Data pertain to program group members in the research sample. All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse.

students who enter with a high school credential and good basic skills to focus on vocational training while taking a few required academic classes (for example, health education, parenting, world of work).

Job Corps participants studied a variety of trades. The most popular categories were clerical and construction-related (about 21 percent each), followed by health (15 percent), food service (10 percent), welding (7 percent), and auto mechanics and repair (7 percent).

The most notable difference among subgroups is that the youngest students, nearly all of whom did not possess a high school diploma or GED at enrollment, were more likely than older students to say they took both academic classes and vocational training (Table IV.2). Moreover, the younger students reported more hours of academic classes than older students (465 compared with 389 and 412, Table IV.3) and fewer hours of vocational training (581 compared with 693 and 803, Table IV.4). Patterns similar to those of the younger students are also found for older students who enrolled in Job Corps without already holding a high school credential. These patterns of participation reflect the program's emphasis on improving academic skills and achieving a credential for students who come with poor skills, at the same time providing vocational training. Students who already have a high school credential and good skills are encouraged to concentrate on vocational training (though all must take a few key academic classes).[8] Also noteworthy is that, within each age and gender group, the experiences of students designated for residential slots and those designated for nonresidential slots were very similar (Table B.5).

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[8] See Johnson et al. 1999.

C. STUDENTS' EXPERIENCES AND PERCEPTIONS OF SELECTED OTHER ACTIVITIES

In addition to formal academic and vocational instruction, Job Corps offers a broad range of activities that are designed to promote health, life skills, and workplace success. While we did not gather detailed data on all domains of center experience, we did ask survey respondents about their experiences with selected activities beyond the core academic classroom instruction and vocational training. Our primary purpose was to assess whether students participated in these activities and whether they thought the activities were useful. (Table IV.5 describes the activities.) Although we asked about academic classes and vocational training in both Job Corps and other programs, we did not ask about these other activities for programs other than Job Corps.

Most enrollees said they participated in most of the key activities we asked about. Figure IV.2 shows participation levels for each activity (Table B.2 shows data by gender and age). Almost 82 percent of enrollees reported having attended P/PEPs. Three-fourths said they took WOW classes, health classes, and social skills training (SST). Nearly two-third of enrollees reported taking parenting and cultural awareness classes. Just less than half of all enrollees took part in the drug and alcohol programs (AODA).

Job placement services was the one area in which well under half of enrollees said they received services (see also Table B.3). Only 39 percent said Job Corps center staff or placement contractor staff had helped them look for a job. This relatively low percentage is consistent with findings on placement services reported in the process report. Johnson et al. (1999) reported that placement contractor staff resources are spread very thin because placement counselors are supposed to serve all students leaving Job Corps for a period of six months. Placement contract managers estimated that their counselors spend half to three-fourths of their time trying to contact former students, many of whom are very mobile, difficult to find, and not interested in receiving placement assistance

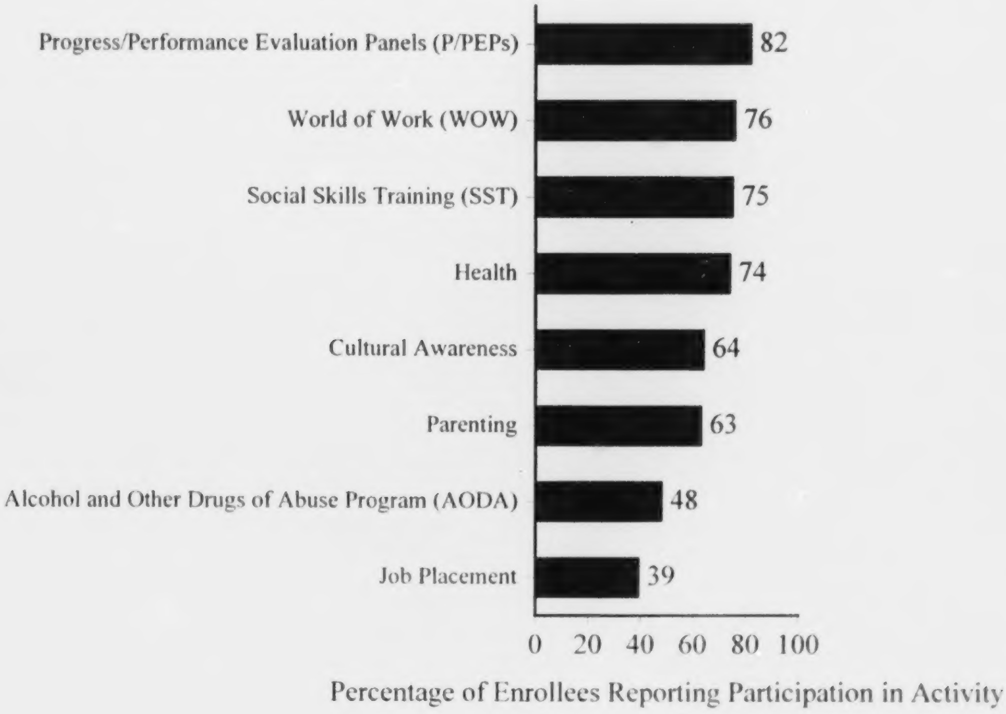
TABLE IV.5

DESCRIPTION OF SELECTED JOB CORPS ACTIVITIES

Activity	Department Providing the Activity	Activity or Topics Covered
Progress/Performance Evaluation Panels (P/PEP)	Led by the student's counselor, each panel includes a residential living adviser, an education instructor, a vocational instructor, and the student	Meets 30 to 45 days after a student enrolls, and then every 60 days thereafter to review student progress and performance, based on ratings from staff who work with the student
World of Work (WOW)	Offered through the academic program	Introductory phase, taught shortly after entry, covers general skills for getting and keeping a job. Exit readiness phase, taught shortly before a student leaves, consists of three units: (1) preparation of a resume, cover letter, and job application; (2) job sources and interviewing; and (3) transition issues
Health Education	Offered through the academic department	Units on emotional and social well-being, human sexuality, sexually transmitted diseases, HIV/AIDS, nutrition, fitness, dental hygiene, consumer health, and safety
Alcohol and Other Drugs of Abuse Program (AODA)	A unit within Health Education, with specialized counselors	Covers the Job Corps ZT policy, anger control, building self-esteem, and other topics to teach students about decision making. Counselors work with students who test positive for drugs or alcohol upon entry and with others who request help
Cultural Awareness	Part of the Intergroup Relations Program offered through the academic department	Topics include living among different cultural groups, acceptance of differences, and discussion of languages, music, food, and art of specific cultural groups
Parenting	Offered through the academic department and required for all students	Covers essential parenting skills
Social Skills Training (SST)	Offered through the residential living department through small discussion groups led by a residential adviser	Curriculum has 50 lessons, addressing topics like being left out, honesty and accusation, giving and accepting criticism
Placement Assistance	Provided by placement assistance contractors	Assist student in finding a job or further education after returning home

FIGURE IV.2

OTHER ACTIVITIES IN JOB CORPS



Source: 12-month and 30-month follow-up interviews.

services. This leaves very little time for working directly with former students to help them find jobs.

Of those students who reported receiving job placement assistance, just over 41 percent said they got a job as a result of the help they received (Table B.3). Thus, only about 16 percent of all enrollees reported getting a job as a result of placement assistance. This information also appears to be broadly consistent with the administrative data information presented in the process report, which indicates that about half of reported "placements" are "self-placements." (Students who found jobs on their own would be recorded as "placed" in the administrative data, although they might not have received help.)

In addition to measuring whether enrollees participated in the selected activities shown in Table IV.5, we asked students for their opinions about the usefulness of each activity (Table B.4). Specifically, the interview asked whether each activity helped "a lot," "a little," or "not at all." While subjective, the measure does show whether students thought the activities were useful.

Of those who participated in each of the socialization activities, most stated that the activity was helpful. Each program activity was reported to have helped "a lot" by 55 to 60 percent of participants and "not at all" by only about 8 to 15 percent of participants. The remaining 25 to 34 percent (depending on the activity) said the program activity helped "a little." Thus, for each activity, between 85 and 92 percent of students said the activity helped a little or a lot.

V. EDUCATION AND TRAINING

Job Corps provides intensive academic classroom instruction and vocational skills training to increase the productivity, and hence the future earnings, of program participants. Chapter IV showed that the typical Job Corps student stays in the program for an extended period (about eight months on average). Furthermore, Job Corps serves primarily students without a high school credential (about 80 percent of students do not have a GED or high school diploma at program entry). Thus, participation in Job Corps probably increases the amount of education and training that participants receive and increases their educational levels relative to what they would have been otherwise.

This chapter describes the education and training experiences of program and control group members and provides estimates of the impact of Job Corps on key education and training outcomes during the 30 months after random assignment. We examine education and training experiences of the *program group,* both in Job Corps and elsewhere, to provide a complete picture of the services they received. The education and training experiences of the *control group* are the "counterfactual" for the study. Although control group members were not permitted to enroll in Job Corps for three years after random assignment, they could enroll in all other programs available in their communities. The control group's experiences are a benchmark that shows what education and training the program group would have engaged in had Job Corps not been available. The net increase in education and training due to Job Corps depends critically on what education and training the control group received and what education and training the program group received from other sources, as well as the education and training the program group received in Job Corps.

This chapter addresses three primary questions:

1. What amount and types of education and training would Job Corps participants receive if they did not participate in Job Corps?

2. Do Job Corps participants receive more education and training than they would have received if they had not participated in Job Corps?

3. Does Job Corps influence educational attainment as measured by the receipt of a GED, vocational certificate, or college degree?

These questions were addressed using survey data on the education and training experiences of sample members during the 30-month follow-up period. The analysis used information on dates of enrollment in education and training programs, the types of programs attended, time spent in academic classes and vocational training, degrees received, and the highest grade completed at the interview date. To compare education and training experiences of members of both the program and control groups, we considered Job Corps along with all other programs, such as English as a Second Language (ESL) and Adult Basic Education (ABE) programs, high school, GED programs, vocational and technical schools, and two-year and four-year colleges. The bulk of education and training for program group members who enrolled in Job Corps came from Job Corps, but some enrollees and many program group members who did not enroll in the program (that is, the no-shows) received other types of education and training.

Our analysis distinguishes between academic classroom instruction and vocational training. Academic instruction included classes at regular school or college, as well as classes taken in some other setting for the purpose of improving reading, writing, or mathematics skills; obtaining a GED or high school diploma; or learning English as a second language. Vocational training was for a specific job or occupation and might have been taken in any setting.

We analyzed academic classroom instruction and specific vocational training separately, because provision of both components is one hallmark of Job Corps. Thus, fully understanding Job Corps and the counterfactual against which Job Corps is measured requires describing not only the overall time spent in education and training, but also the time spent in its component parts: academic classes and vocational training.

Many control group members received substantial amounts of education and training. More than 64 percent participated in an education or training program during the 30 months after random assignment. On average, they received 637 hours of education and training, roughly equivalent to half a year of high school. Participation rates were highest in programs that substitute for Job Corps: GED programs (35 percent), high school (31 percent), and vocational, technical, or trade schools (21 percent).

Job Corps substantially increased the education and training that program participants received, despite the activity of the control group. Nearly 90 percent of the program group engaged in some education or training, compared to about 64 percent of the control group (an impact of 25 percentage points per eligible applicant). The average program group member spent more than twice as many hours in education and training as the average control group member (10.6 hours per week, compared to 4.9 hours per week). In total, the typical program group member received 1,378 hours of education and training, compared to 637 hours for the typical control group member. Job Corps participants spent about 7.7 hours per week (1,001 hours in total) more in programs than they would have if they had not enrolled in the program. This impact per participant corresponds to roughly one school year.

The program group also spent significantly more time in academic classes, and even more in vocational training. Program group members spent an average of 4.6 hours per week (598 hours in total) in academic classes, compared to 3.6 hours per week (468 hours) for the control group (an impact of 1 hour per week, or 130 hours in total). The program group typically received about four times more vocational training than the control group (4.5 hours per week, compared to 1 hour per week).

Job Corps increased the receipt of GED and vocational certificates but had small negative impacts on the attainment of a high school diploma. Among those without a high school credential at random assignment, about 35 percent of program group members (and 40 percent of program group participants) obtained a GED during the 30-month period as compared to only 17 percent of control group members (an impact of 18 percentage points per eligible applicant). Similarly, about 28 percent of program group members (and 35 percent of Job Corps participants) reported receiving a vocational certificate, compared to about 8 percent of control group members (an impact of 20 percentage points). Among those without a credential at baseline, a slightly higher percentage of control group members obtained a high school diploma (5.8 percent, compared to 4.3 percent of program group members). Although many of the younger control group members attended high school, most of those in high school did not graduate, because they attended for an average of only about nine months.

At 30 months after random assignment, college attendance and completion had not been affected. About 9 percent of each research group attended a two-year college, and about 2.0 percent attended a four-year college. Less than 1 percent obtained a two- or four-year college degree.

Finally, impacts on education and training were large across all subgroups defined by youth characteristics. However, the pattern of impacts across age groups exhibited some differences. We find no impacts on hours in academic classes for those 16 and 17 at application to Job Corps, because nearly half of all control group members who were 16 and 17 attended academic classes in high school. However, impacts on hours spent in academic classes were large for the older youths, and hours spent in vocational training were large across all age groups.

The rest of the chapter provides details on our findings. The first section presents impact estimates on participation and time spent in education and training programs, and on types of programs attended. This section also discusses impact findings on time spent in academic classes and vocational training. In the second section, we present impacts on educational attainment. Finally, we present impacts for key subgroups. Supplementary tables are included in Appendix C.

A. IMPACTS ON PARTICIPATION AND TIME SPENT IN EDUCATION AND TRAINING PROGRAMS

This section compares the participation in education and training programs of the full program and control groups during the 30 months after random assignment. We expected that these impacts would be large during the period soon after random assignment, because many program group members were enrolled in Job Corps during this period. Job Corps might also increase participation during the postprogram period, because Job Corps encourages students to pursue additional training after finishing Job Corps and helps place them in such programs.

1. Impacts on Participation in Education and Training Programs

Many control group members participated in education and training programs (Table V.1). More than 64 percent of the control group participated in a program at some point during the 30-month follow-up period. Nearly one-fourth (and about 37 percent of those in programs) attended more than one program. Interestingly, the control group participation rate declined only slightly over time. It was about 30 percent per quarter during the first five quarters (that is, fifteen months) after random assignment and decreased to about 22 percent between quarters 8 and 10. These high participation rates are not surprising, because control group members demonstrated motivation to

TABLE V.1

IMPACTS ON PARTICIPATION IN EDUCATION AND TRAINING PROGRAMS

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Percentage Ever Enrolled in a Program During the 30 Months After Random Assignment	89.7	64.4	25.4***	100.0	34.8***	53.3
Number of Programs Ever Enrolled in (Percentages)						
0	10.4	36.2	-25.9***[d]	0.0	-35.5***[d]	
1	48.1	40.5	7.6	50.1	10.5	26.4
2	30.9	19.4	11.5	36.3	15.7	76.5
3 or more	10.7	3.9	6.8	13.6	9.3	214.9
Average Number of Programs Ever Enrolled in	1.4	0.9	0.5***	1.7	0.7***	75.1
Percentage Enrolled in a Program by Quarter After Random Assignment						
1	75.5	28.8	46.7***	93.9	64.1***	214.5
2	64.4	31.5	32.9***	78.9	45.1***	133.8
3	53.9	32.0	21.9***	64.2	30.1***	88.2
4	45.4	32.2	13.2***	51.9	18.1***	53.4
5	40.2	29.7	10.5***	45.0	14.4***	46.9
6	32.3	26.2	6.1***	34.9	8.3***	31.3
7	27.6	24.1	3.5***	29.3	4.8***	19.5
8	24.6	22.6	2.0**	25.4	2.7**	12.1
9	22.9	22.0	0.9	23.3	1.3	5.7
10	21.4	21.9	-0.5	21.5	-0.6	-2.9
Percentage Enrolled in a Program at 30 Months	15.7	15.8	-0.1	15.5	-0.1	-0.6
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] The significance levels pertain to statistical tests for differences in the distribution of the outcome measure for program and control group members.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

obtain training by persisting with their Job Corps application to the point of being determined eligible. Thus, it is not surprising that they had the motivation to find other programs.[1,2]

Despite high control group participation rates, Job Corps substantially increased participation rates in education and training programs (Table V.1). Nearly 90 percent of program group members (and all program group members who enrolled in Job Corps) received some education or training during the two-and-half-year observation period, compared to 64 percent of control group members--an impact per eligible applicant of 25.4 percentage points. The impact per participant was 35 percentage points.

Consistent with this finding is that the typical program group member participated in more programs than the typical control group member (1.4 programs as compared to 0.9 programs). Even among those who participated in education and training programs, the program group participated in more programs. For example, among those who attended programs, about 46 percent of program group members enrolled in at least two programs, as compared to 37 percent of control group members. As discussed below, this is because more than half of Job Corps participants enrolled in another education or training program during the 30-month period (including programs attended before and after they enrolled in Job Corps).

Figure V.1 plots quarterly participation rates in education and training programs by research status. The figure shows the percentage of program and control group members who ever

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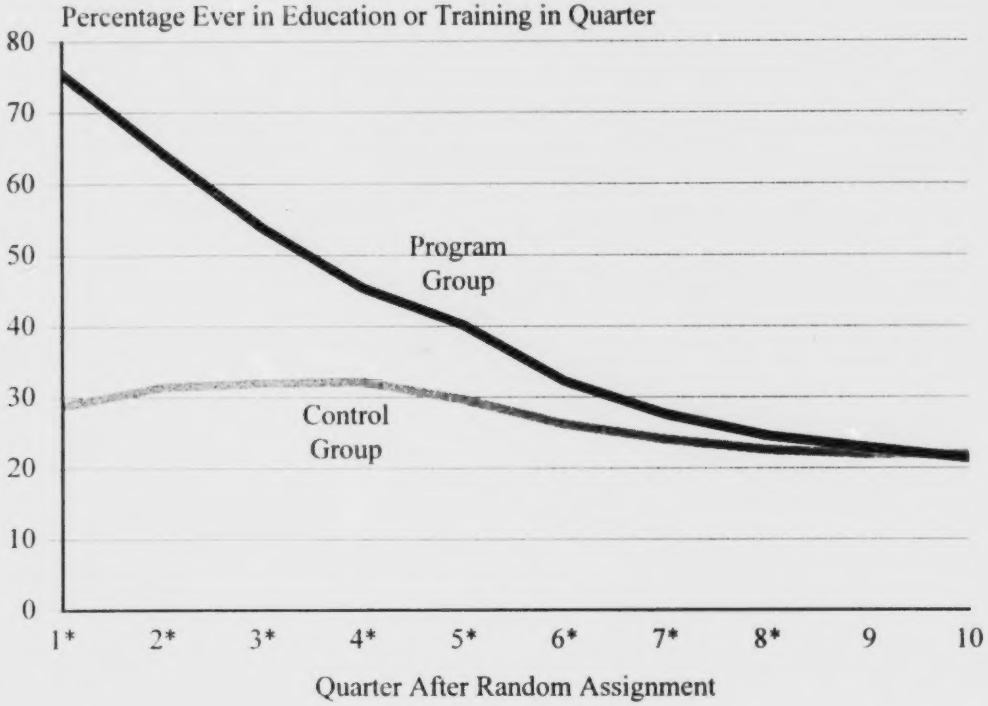
[1] Less than 2 percent of control group members who attended programs before the 12-month interview reported that their most important source of information about the program was the Job Corps OA counselor. Thus, most learned about these programs from other sources (the most common of which were friends, parents, school, and the media).

[2] These educational experiences pertain to eligible program *applicants*, and do not necessarily pertain to the broader population of youths who were eligible for Job Corps but who did not apply to the program.

FIGURE V.1

PARTICIPATION RATES IN EDUCATION AND TRAINING PROGRAMS, BY QUARTER



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

participated in an education or training program (including Job Corps) during each of the 10 quarters after random assignment. Differences in the program and control group participation rates are estimated impacts per eligible applicant. The statistical significance of these quarterly impacts is denoted by asterisks along the horizontal axis.

The impacts on participation in education-related programs were concentrated in the first six quarters (that is, 18 months) after random assignment. Impacts were large during this period, because many program group members were enrolled in Job Corps then. The quarterly impacts, however, decreased as program group members started leaving Job Corps, and these impacts were not statistically significant in quarters 9 and 10. The impact per eligible applicant was about 47 percentage points in quarter 1 and decreased to 22 percentage points in quarter 3 and 11 percentage points in quarter 5. The impact was about 3.5 percentage points in quarter 7 and near zero in quarters 9 and 10. About 16 percent of both research groups were enrolled in a program during the last week of the 30-month follow-up period.

The finding that similar percentages of program and control group members were enrolled in programs during the postprogram period is important, because it suggests that impacts on employment and earnings late in the 30-month period were not affected by differences in school enrollment rates by research status.

2. Impacts on Time Spent in Education and Training Programs

We report two period-specific measures of time spent in education and training programs: (1) proportion of weeks spent in programs, and (2) hours per week spent in programs. The measures were constructed by dividing the total weeks (or hours) spent in programs during the period by the number of weeks in the period. The measures were set to zero for those who did not participate in education or training programs during the period.

Consistent with the participation findings, impacts on time spent in education and training were positive and large (Table V.2). Program group members spent an average of 32 percent of weeks in programs, compared to 21 percent of weeks for control group members (an impact of 11 percentage points per eligible applicant). Similarly, program group members spent more than twice as many hours in programs (an average of 10.6 hours per week, as compared to an average of 4.9 hours per week for the control group). Over the entire 30-month (130-week) period, program group members received an average of 1,378 hours of education and training, whereas control group members received an average of 637 hours. Job Corps *participants* spent about 7.7 hours per week (1,001 hours in total) more in programs than they would have if they had not enrolled in Job Corps. This impact per participant corresponds to roughly one school year. The impact on hours was larger proportionately than the impact on weeks, because Job Corps involves more hours per week than most alternative education and training programs.

Not surprisingly, the time profile of the quarterly impacts on hours per week in programs closely resembles that of the impacts on program participation rates (Figure V.2). Impacts were largest during the period when many program group members were enrolled in Job Corps, and these impacts decreased as they left the program. Although impacts were positive toward the end of the follow-up period, they were small.

3. Impacts on the Types of Programs Attended

Control group members were not permitted to enroll in Job Corps for three years after random assignment. However, many did enroll in other education and training programs in their communities. Therefore, Job Corps opportunities offered to eligible applicants probably reduce their

TABLE V.2

IMPACTS ON TIME SPENT IN EDUCATION AND TRAINING PROGRAMS

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Percentage of Weeks in Education or Training During the 30 Months After Random Assignment						
0	11.4	38.1	-26.7***d	0.0	-36.6***d	
0 to 0.25	37.0	31.5	5.5	39.0	7.5	23.9
0.25 to 0.50	29.2	15.2	14.0	35.0	19.3	122.7
0.50 to 0.75	13.4	9.6	3.7	15.6	5.1	48.9
0.75 to 1.00	9.1	5.7	3.4	10.4	4.7	82.2
Average Percentage of Weeks Ever in Education or Training	31.7	20.8	10.9***	36.3	14.9***	70.0
Hours per Week Ever in Education or Training (Percentage)						
0	11.5	38.2	-26.7***d	0.0	-36.6***d	
0 to 5	25.2	31.7	-6.5	22.2	-8.9	-28.6
5 to 10	19.7	12.6	7.1	22.9	9.7	73.8
10 to 15	16.1	7.3	8.8	19.9	12.0	152.9
More than 15	27.5	10.2	17.3	35.0	23.7	211.3
Average Hours per Week Ever in Education or Training	10.6	4.9	5.6***	12.8	7.7***	153.3
Average Hours per Week in Education or Training by Quarter						
1	20.7	5.3	15.4***	26.7	21.1***	377.4
2	20.3	6.2	14.2***	26.2	19.4***	287.7
3	16.1	6.2	9.9***	20.3	13.6***	201.9
4	12.0	5.8	6.2***	14.7	8.5***	137.7
5	9.8	5.5	4.4***	11.7	6.0***	105.8
6	7.7	4.9	2.8***	8.9	3.9***	77.5
7	6.1	4.3	1.8***	6.9	2.5***	56.9
8	5.2	3.9	1.2***	5.7	1.7***	42.8
9	4.3	3.6	0.7***	4.7	1.0***	26.0
10	3.8	3.3	0.5***	4.0	0.6***	18.5
Sample Size	7,311	4,476	11,787	5,246		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] The significance levels pertain to statistical tests for differences in the distribution of the outcome measure for program and control group members.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

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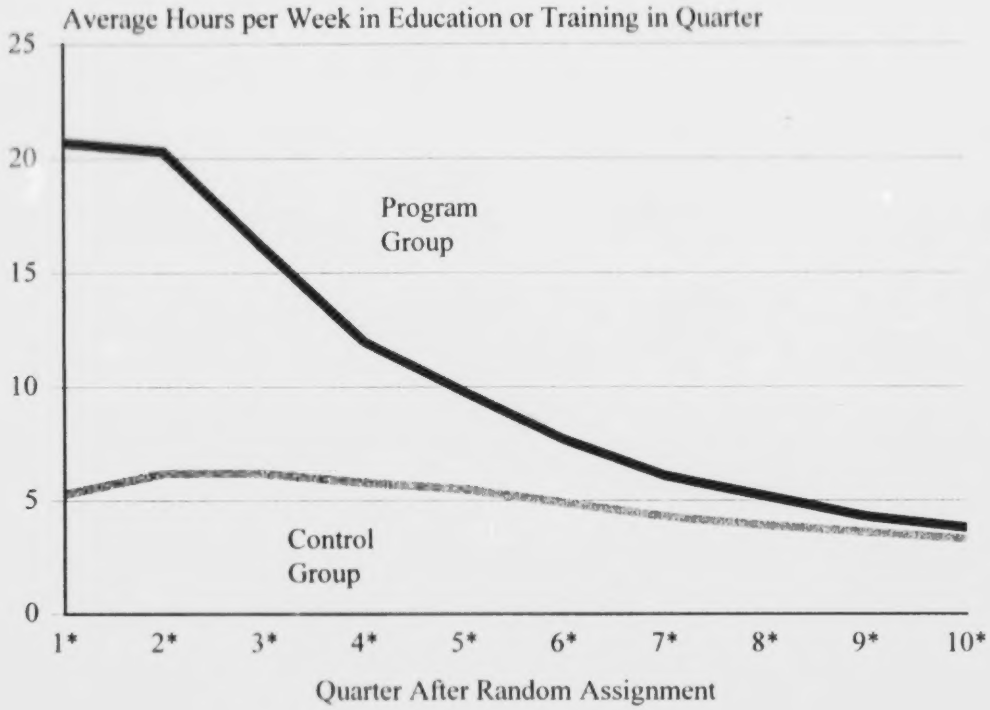
FIGURE V.2

AVERAGE HOURS PER WEEK IN EDUCATION AND TRAINING PROGRAMS, BY QUARTER



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

participation in other programs that may substitute for Job Corps, such as high school, GED programs, and vocational and technical schools. It is very important to examine impacts on the time spent in these alternative programs, because the net costs of participation in these programs will offset the costs of participation in Job Corps in the benefit-cost analysis (which will be conducted as part of the analysis of impacts at 48 months after random assignment.)

Figure V.3 displays data on participation of the program and control groups in several types of education and training programs. Table V.3 provides more details on the calculations.

As noted above, more than 64 percent of the control group attended programs other than Job Corps.[3] Participation rates among the control group were highest for programs that could be considered close substitutes for Job Corps: GED programs (35 percent); high school (31 percent); vocational, technical, or trade schools (21 percent); and ESL or ABE classes (8 percent). Only small percentages of the control group attended two-year colleges (9 percent) or four-year colleges (2 percent).

As expected, control group members were more likely than program group members to enroll in a program other than Job Corps during the 30-month period (64 percent as compared to 54 percent). The differences in participation rates in high school, GED programs, vocational schools, and ABE and ESL programs are statistically significant. There were no differences in enrollment rates in two- or four-year colleges.

Impacts on time spent in alternative education and training programs follow similar patterns (Table C.1). However, the impact on time spent in alternative programs is proportionately larger than the impact on participation rates, because control group members who attended alternative

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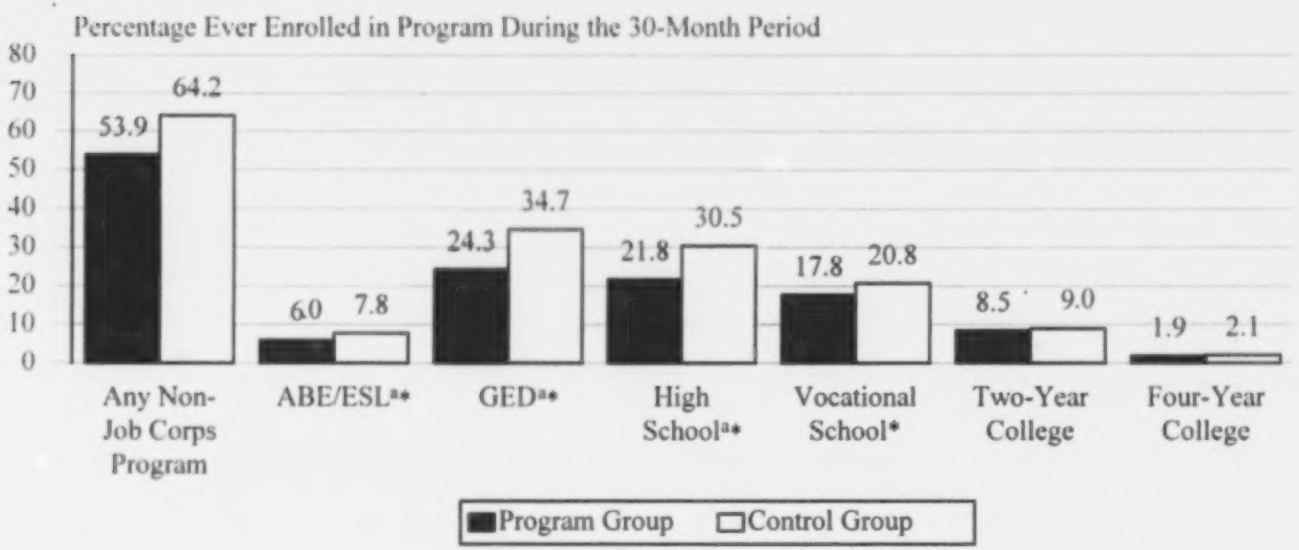
[3] About 0.5 percent reported enrolling in Job Corps, which is almost identical to the figure from Job Corps program data.

FIGURE V.3

PARTICIPATION IN EDUCATION AND TRAINING PROGRAMS, BY TYPE OF PROGRAM



Source: Baseline, 12-month, and 30-month follow-up interviews.

* Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

[a] Figures pertain to those who did not have a high school diploma or GED at random assignment.

TABLE V.3

IMPACTS ON PARTICIPATION IN EDUCATION AND TRAINING PROGRAMS, BY TYPE OF PROGRAM

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Types of Programs Ever Attended During the 30 Months After Random Assignment (Percentage)						
Job Corps	72.9	0.5	72.4***	100.0	99.3***	
Any program other than Job Corps	53.9	64.2	-10.4***	50.9	-14.2***	-21.9
ABE or ESL[d]	6.0	7.8	-1.7***	5.4	-2.4***	-30.8
GED[d]	24.3	34.7	-10.4***	20.8	-14.3***	-40.7
High school[d]	21.8	30.5	-8.7***	21.0	-12.0***	-36.3
Vocational, technical, or trade school	17.8	20.8	-2.9***	16.8	-4.0***	-19.3
Two-year college	8.5	9.0	-0.4	8.3	-0.6	-6.9
Four-year college	1.9	2.1	-0.2	1.6	-0.3	-13.7
Other	2.2	3.0	-0.9***	2.0	-1.2***	-37.8
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] Figures pertain to sample members who did not have a high school credential at random assignment.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

programs did so for longer periods than their program group counterparts (Table C.2). For example, among those who attended high school, control group members were enrolled for an average of 38 weeks (approximately nine months) as compared to an average of 26 weeks for program group members.[4] Among those who enrolled in two-year colleges, the corresponding periods of enrollment were nearly 40 weeks for the control group and 36 weeks for the program group.

While impacts on participation in alternative programs are statistically significant, we were surprised at how small they were. Program group members made considerable use of these same programs, which increased impacts on education and training and reduced the offset to Job Corps program costs. To understand more fully the education and training experiences of the program group outside Job Corps, we tabulated enrollment rates in these programs for Job Corps participants before and after they enrolled in Job Corps, and for the no-shows (Table V.4).

About 18 percent of Job Corps participants attended an education program during the follow-up period before they enrolled in Job Corps (that is, between their random assignment and Job Corps enrollment dates). Not surprisingly, most of this activity was high school attendance. This finding is consistent with the fact that about one-quarter of eligible applicants in our sample were in school in the month prior to application to Job Corps (Schochet 1998a), and thus some were still enrolled at random assignment (that is, when they were determined to be eligible for the program).

About 40 percent of Job Corps participants enrolled in an education or training program after leaving Job Corps.[5] Over one-fourth of Job Corps terminees attended GED programs (18 percent)

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[4] These figures were calculated using the results that control group attendees were enrolled for 29.3 percent of weeks during the 130-week period, compared to 19.8 percent of weeks for program group attendees.

[5] Some youths reported being enrolled in programs outside Job Corps while also enrolled in Job Corps. These programs were excluded from Table V.4.

TABLE V.4

PARTICIPATION IN EDUCATION AND TRAINING PROGRAMS OTHER THAN JOB CORPS FOR JOB CORPS PARTICIPANTS AND NO-SHOWS

(Percentages)

	Job Corps Participants		
Programs Ever Attended Other than Job Corps	Pre-enrollment	Post-enrollment	No-Shows
Any Program	18.4	39.5	61.5
ABE/ESL[a]	1.8	3.4	7.8
GED[a]	2.7	17.9	34.5
High School[a]	14.3	9.3	23.6
Vocational, Technical, or Trade School	2.8	13.8	21.0
Two-Year College	0.5	7.3	2.8
Four-Year College	0.0	1.6	9.1
Other	0.8	1.2	2.8

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse.

[a] Figures pertain to sample members who did not have a high school credential at random assignment.

or returned to high school (9 percent). This group is composed of students who went to Job Corps but did not obtain a high school credential and decided to go back to school in their home community. Nearly one-fourth enrolled in vocational or trade schools (14 percent), two-year colleges (7 percent) or four-year colleges (2 percent). While some of these students did not complete Job Corps, this pattern of participation is more consistent with first completing Job Corps and then seeking advanced training after termination.

Finally, many of the 27 percent of program group members who never participated in Job Corps (the no-shows) enrolled in other programs. About 62 percent enrolled in a program during the 30-month period. Interestingly, the pattern of participation in non-Job Corps programs for this group closely follows the pattern for control group members.

4. Impacts on Participation in Academic Classes and Vocational Training

On the basis of results discussed thus far, we might expect large impacts on time spent in academic classes and vocational training. Job Corps substantially increased time spent in education and training programs during the 30-month period, and most program group Job Corps enrollees participated extensively in the academic and vocational program components.

We also expect larger impacts on the amount of vocational training than on the amount of academic classroom instruction. Control group members who attended education and training programs predominantly enrolled in high school and GED programs, which are academic programs.[6] A small percentage enrolled in vocational programs. Thus, control group members were more likely to receive academic classroom instruction than vocational training, whereas program group members received significant amounts of both. Analysis of impacts on participation in academic instruction and vocational training confirmed these expectations.[7]

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[6] Students who said they were attending a GED course were assumed to be in an academic program. Students who said they were attending high school were asked separately about academic and vocational instruction.

Program group members received substantially more academic classroom instruction than did control group members (Figure V.4 and Table V.5). About 80 percent of program group members (and 89 percent of Job Corps participants) ever took academic classes during the 30 months after random assignment, as compared to 55 percent of control group members (an impact of 25 percentage points per eligible applicant). Similarly, the impact per eligible applicant on hours per week in academic classes was 1 hour (an average of 4.6 hours for the program group and 3.6 hours for the control group). These figures translate to about 600 hours of academic classroom training for the typical program group member over the 30-month period and 470 hours for the typical control group member. Not surprisingly, impacts occurred primarily during the first 12 months after random assignment (the in-program period).

Impacts on the amount of vocational training were larger (Figure V.4 and Table V.6). The percentage of program group members who received vocational training was more than three times that for the control group (72 percent as compared to 21 percent). Furthermore, average hours per week in vocational training was more than four times higher for the program group (4.5 hours per week, compared to 1.0 hour per week for the control group). Program group members had an average of 585 hours of vocational training over the 30-month period, compared to 130 hours per

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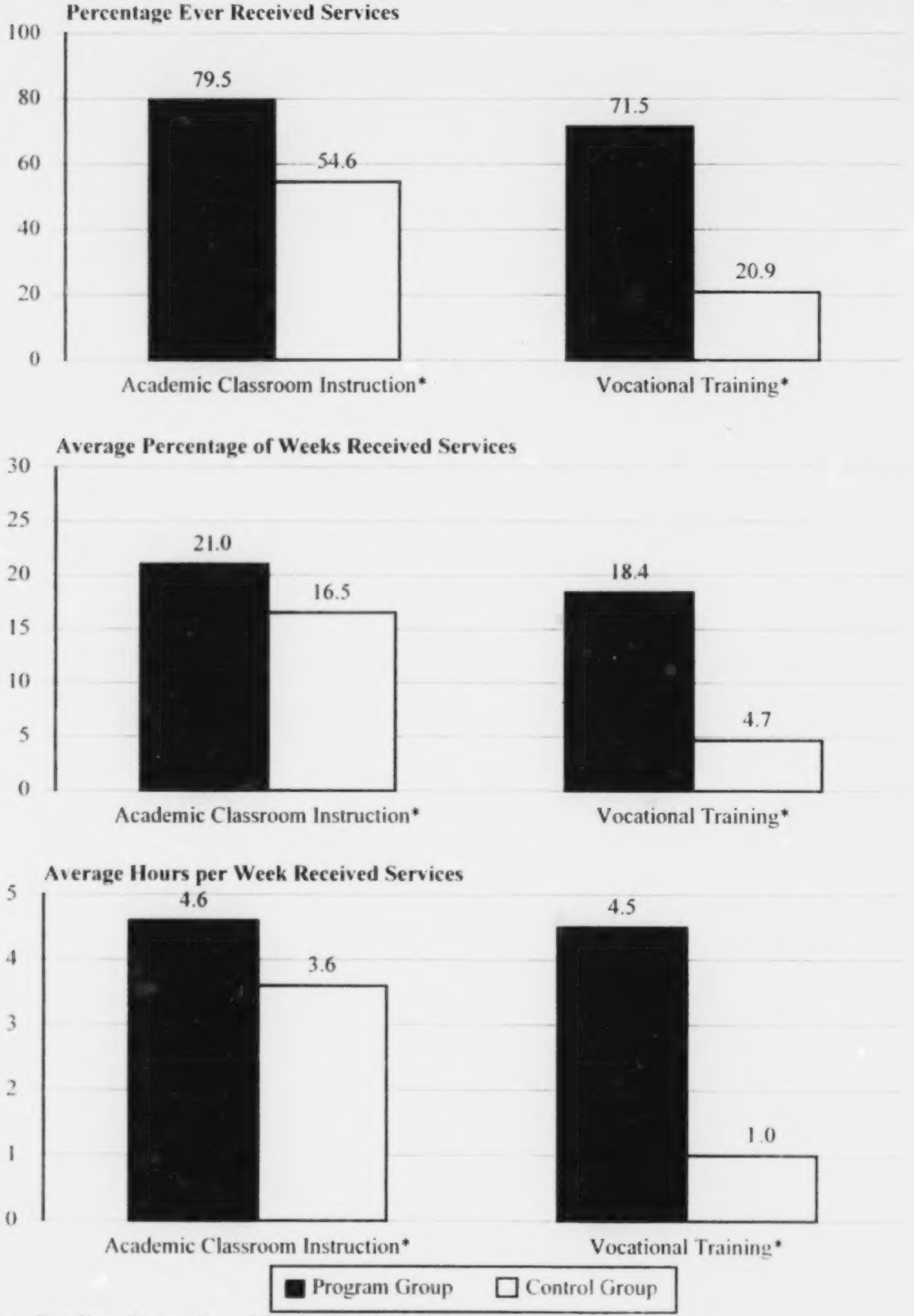
[7] The part of the 30-month follow-up questionnaire that collected information on academic and vocational training was changed in the middle of data collection to correct an error in the instrument's skip logic. Therefore, results on vocational and academic training are based on a restricted sample consisting of those whose 30-month interview took place after April, 1998, or about 45 percent of the full 30-month sample. The information on these sample members is believed to be accurate, and any differences between those interviewed early and later in the cycle are likely to be equally present, on average, in both program and control groups. Thus, the impact estimates, though probably unbiased, may not be fully representative of the full sample.

FIGURE V.4

PARTICIPATION IN ACADEMIC CLASSES AND VOCATIONAL TRAINING DURING THE 30 MONTHS AFTER RANDOM ASSIGNMENT



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

TABLE V.5

IMPACTS ON PARTICIPATION IN ACADEMIC CLASSES

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Percentage Ever Took Academic Classes During the 30 Months After Random Assignment	79.5	54.6	24.9***	89.3	34.1***	61.9
Percentage in Academic Classes, by Quarter After Random Assignment						
1	62.7	25.0	37.7***	77.7	51.7***	199.4
2	49.7	25.5	24.1***	60.5	33.1***	120.9
3	34.4	24.9	9.4***	39.5	13.0***	48.8
4	28.1	25.3	2.8**	29.9	3.8**	14.7
5	29.4	25.3	4.1***	31.7	5.6***	21.4
6	22.3	20.8	1.6	23.2	2.2	10.2
7	19.0	18.8	0.2	19.4	0.3	1.7
8	17.0	16.9	0.0	16.9	0.1	0.4
9	15.6	17.3	-1.7	15.4	-2.3	-13.1
10	14.4	16.0	-1.6	14.1	-2.3	-13.8
Average Percentage of Weeks in Academic Classes						
All months	21.0	16.5	4.5***	23.3	6.2***	36.4
Months 1 to 12	30.9	18.7	12.2***	36.3	16.7***	85.2
Months 13 to 24	16.6	16.2	0.4	17.1	0.5	2.9
Months 25 to 30	11.6	12.6	-1.0	11.4	-1.4	-10.7
	4.6	3.6	1.0***	5.1	1.4***	35.7
Average Hours per Week in Academic Classes						
All months	4.6	3.6	1.0***	5.1	1.4***	35.7
Months 1 to 12	6.9	4.7	2.3***	8.2	3.1***	60.6
Months 13 to 24	3.7	3.4	0.3	3.8	0.5	13.8
Months 25 to 30	2.3	2.3	0.0	2.3	0.0	0.1
Sample Size	**3,262**	**2,039**	**5,301**	**2,342**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

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TABLE V.6

IMPACTS ON PARTICIPATION IN VOCATIONAL TRAINING

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Percentage Ever Received Vocational Training During the 30 Months After Random Assignment	71.5	20.9	50.6***	91.0	69.4***	320.7
Percentage Received Vocational Training, by Quarter After Random Assignment						
1	56.4	5.0	51.4***	76.4	70.6***	1,212.8
2	49.9	5.4	44.5***	67.1	61.0***	1,003.4
3	37.1	5.1	32.0***	49.2	43.9***	825.0
4	25.7	5.9	19.8***	33.2	27.1***	450.9
5	24.1	6.9	17.2***	30.4	23.6***	346.8
6	16.2	6.2	10.0***	20.2	13.7***	213.1
7	11.8	5.8	6.1***	14.2	8.3***	142.4
8	9.2	6.1	3.1***	10.8	4.2***	62.9
9	7.9	5.8	2.1***	9.1	2.9***	46.5
10	7.6	5.8	1.8**	8.4	2.5**	42.8
Average Percentage of Weeks Received Vocational Training						
All months	18.4	4.7	13.7***	23.5	18.8***	391.4
Months 1 to 12	31.4	4.8	26.5***	41.6	36.4***	703.8
Months 13 to 24	12.0	4.8	7.2***	14.6	9.9***	205.7
Months 25 to 30	6.4	4.4	2.0***	7.1	2.7***	62.1
Average Hours per Week Received Vocational Training						
All months	4.5	1.0	3.5***	5.8	4.8***	490.7
Months 1 to 12	7.6	1.0	6.6***	10.1	9.1***	952.3
Months 13 to 24	2.9	1.1	1.9***	3.6	2.6***	255.7
Months 25 to 30	1.5	1.0	0.5***	1.7	0.7***	72.9
Sample Size	**3,262**	**2,039**	**5,301**	**2,342**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

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control group member. Impacts were largest during the first year after random assignment, when many program group members were enrolled in Job Corps, although they were still positive and statistically significant during months 13 to 24 and even months 25 to 30.

B. IMPACTS ON EDUCATIONAL ATTAINMENT

Job Corps substantially increased the overall time youths devoted to education and training programs, as well as time devoted to academic instruction and vocational training. Did these increases in effort lead to gains in the attainment of GED certificates, vocational certificates, and college degrees or to gains in years of school completed?

Job Corps could affect attainment of a high school credential and a vocational certificate, because of both the additional time devoted to training and the emphasis placed on reaching these milestones. In all Job Corps centers, the academic department emphasizes helping students who do not have a high school credential at program entry to obtain a GED. About one-quarter of centers are also accredited to grant a high school diploma. Reflecting the importance that program managers attach to these goals, the Job Corps performance measurement system incorporates strong incentives promoting it. At the time program group members were enrolled, performance ratings of center operators depended directly on how many students earned a GED or diploma.

A defining feature of the Job Corps vocational education program is its emphasis on competency-based instruction. Each trade follows a prescribed plan of activities and has criterion-referenced measurements that are used to verify student competencies in each of the skills required of an entry-level position in an occupation. Students receive vocational certificates at various step-off levels. Currently, performance ratings depend on ensuring that students complete Job Corps and secure jobs or postprogram training. Obtaining a GED or completing vocational training are requisites for defining a student as a Job Corps completer.

It is unclear whether Job Corps is likely to affect attainment of a high school diploma. On the one hand, as noted, about one-quarter of Job Corps centers can grant state-recognized high school diplomas. On the other hand, the alternative to Job Corps includes a substantial amount of attendance in high school. Which effect is stronger is an empirical question.

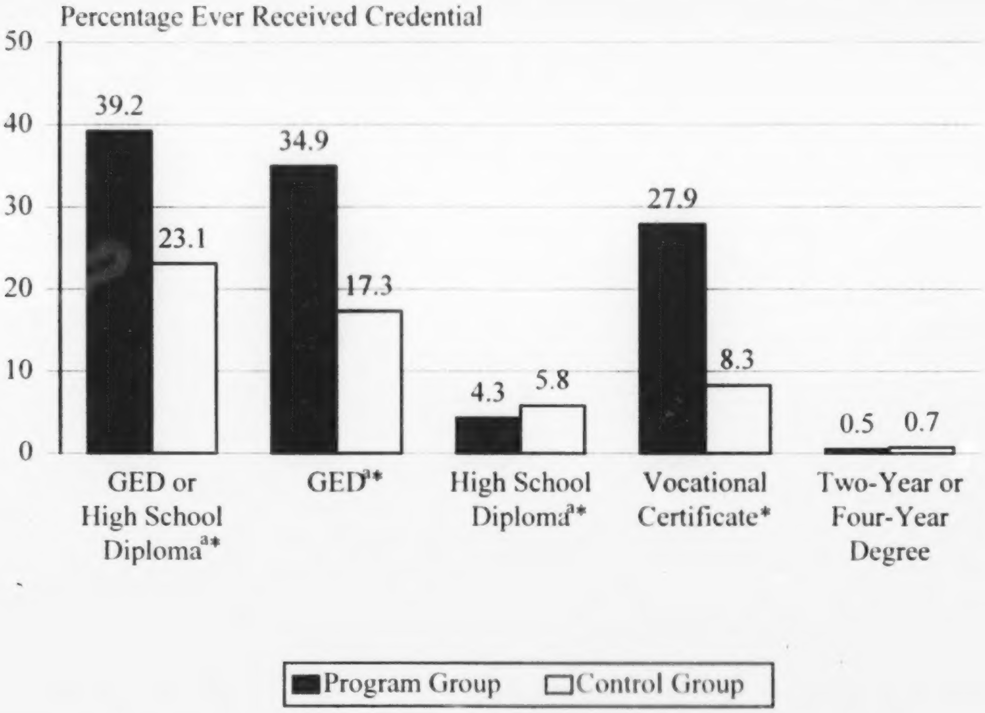
1. Impacts on the Attainment of a High School Credential

Job Corps had a large positive impact on GED completion for the 80 percent of youths without a high school credential at random assignment (Figure V.5 and Table V.7). Of those who did not already have a high school credential, 35 percent of the program group and 17 percent of the control group received a GED, an impact of 18 percentage points per eligible applicant. About 40 percent of program group members who enrolled in Job Corps without a credential received a GED certificate.

Few youths without a high school credential at random assignment obtained a high school diploma, although slightly more control group members did so (Figure V.5 and Table V.7). Among those without a credential at baseline, 5.8 percent of control group members obtained a high school diploma, as compared to 4.3 percent of program group members (a statistically significant impact of -1.5 percentage points per eligible applicant). As discussed, about 30 percent of dropouts in the control group enrolled in high school. Thus, just 20 percent of those who attended high school obtained a high school diploma. This low completion rate was due to the fact that high school attendees attended for an average of only about nine months, while the average dropout had completed less than the tenth grade at the time of Job Corps enrollment.

FIGURE V.5

DEGREES, DIPLOMAS, AND CERTIFICATES RECEIVED



Source: Baseline, 12-month, and 30-month follow-up interviews.

[a]Figures pertain to those who did not have a high school credential at random assignment.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

TABLE V.7

IMPACTS ON EDUCATIONAL ATTAINMENT

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Degrees, Diplomas, and Certificates Received During 30 Months After Random Assignment (Percentage)						
GED certificate or high school diploma[d]	39.2	23.1	16.1***	43.8	22.1***	101.8
GED certificate[d]	34.9	17.3	17.6***	40.0	24.1***	151.0
High school diploma[d]	4.3	5.8	-1.5***	3.8	-2.0***	-34.7
Vocational, technical, or trade certificate	27.9	8.3	19.5***	35.1	26.8***	322.5
College degree (two-year or four-year)	0.5	0.7	-0.2	0.5	-0.3	-36.1
Highest Grade Completed at the 30-Month Interview						
Less than 9	7.1	7.1	0.0	7.4	0.0	-0.6
9 to 11	63.2	62.4	0.8	64.6	1.1	1.8
12	25.2	25.4	-0.2	24.1	-0.3	-1.2
Greater than 12	4.5	5.1	-0.6	3.8	-0.8	-16.7
Average Highest Grade Completed	10.6	10.7	0.0	10.6	-0.1	-0.5
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] Figures pertain to sample members who did not have a high school credential at random assignment.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

Overall, program group dropouts were much more likely than control group dropouts to obtain a high school credential (either a GED certificate or a high school diploma) during the 30-month period (39 percent, compared to 23 percent). These impacts were large, because Job Corps slightly reduced the high school diploma completion rate but more than doubled the GED completion rate.

The rate of high school completion for the control group was similar to the rate for low income dropouts based on data from the 1988 National Education Longitudinal Study (NELS). Among low-income 1988 eighth-graders who dropped out of high school at least once between 1988 and 1992, about 20 percent received a GED by 1994 (as compared to 17 percent of the control group), and about 13 percent obtained a high school diploma by 1994 (as compared to about 6 percent of the control group).[8]

The high school diploma and the GED are both meant to certify completion of a secondary school education. However, some have argued that a GED is worth less than a diploma in the labor market (Heckman and Cameron 1993; and Boesel et al. 1998), although the empirical evidence is mixed. Furthermore, it may be that a GED earned through a special program such as Job Corps is more valuable than one earned, for example, as a result of a narrowly focused test-preparation course. Whether the observed impacts on educational attainment lead to longer-term labor market success must remain an unanswered question, at least for now and most likely in the longer run as well.[9]

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[8] See Berktold et al. 1998.

[9] When interpreting Job Corps impacts on employment and earnings, we will not be able to determine how much of the impacts were due to the attainment of a credential and how much were due to the many other elements of Job Corps that are designed to promote labor market success.

2. Impacts on the Attainment of a Vocational Certificate

Job Corps had very large impacts on the attainment of a vocational certificate (Figure V.5 and Table V.7). The estimated impact was 20 percentage points (28 percent of the program group received a vocational certificate, compared to 8 percent of the control group), and is even larger than the GED impact.

The emphasis given to documenting progress and certifying vocational completion in Job Corps creates a need for caution in interpreting these large impacts. The unique structure of Job Corps may have made program group members more likely to receive a vocational certificate than control group members who achieved similar levels of competency in alternative vocational programs. Still, the impacts on vocational certification are in line with impacts on receipt of vocational training, which lends credence to the findings.

3. Impacts on the Attainment of a College Degree

As discussed, very few members of either the control group or the program group attended two-year or four-year colleges during the 30 months after random assignment. Thus, very few, only about 0.6 percent of youth in both groups, earned a two- or four-year college degree (Figure V.5 and Table V.7).

Results from the 48-month follow-up survey might reveal more college completion. However, because few sample members enrolled in two-year colleges and even fewer in four-year colleges during the 30-month period, we do not expect to observe large impacts on the receipt of college degrees at 48 months.

4. Impacts on Highest Grade Completed

Because we find few differences by research status in the attainment of high school diplomas or college degrees, it is not surprising that we find no impact on years of formal schooling completed at the 30-month interview (Table V.7). The average highest grade completed was about 10.6 for both groups (as compared to 10.1 for both groups at random assignment), and the distributions of highest grade completed were nearly identical for the two groups. These results are due to the fact that youth who attended formal school did not remain there for substantial periods of time.

These results suggest that Job Corps does not affect the educational attainment as measured by self-reported grade completion, which presumably includes only formal schooling and thus captures only one dimension of education. Those who participated in GED programs or other academic courses outside a regular high school were not likely to have reported a change in their highest grade completed, nor were those whose training activities were vocational.

Self-reports of highest grade completed are somewhat unreliable. This is evident in the comparison of reports by the same individual from one interview to the next, which showed many inconsistent responses, such as "highest" grade levels that went down over time. Indeed, researchers who study educational attainment have noted the presence of measurement error in this kind of report (Ashenfelter and Krueger 1994). We estimated impacts using a number of alternative measures of highest grade completed, including the maximum report and an "edited" version based on alternative rules for eliminating or recoding certain suspicious or inconsistent cases. The particular correction did affect the final attainment levels, but it had no effect on the finding that program and control group differences were negligible.

C. FINDINGS FOR SUBGROUPS

This section presents data on the education and training experiences of key subgroups defined by youth characteristics at baseline. We focus our discussion on subgroups defined by age at application to Job Corps and high school credential status at random assignment. These subgroups are of particular interest because of substantial differences in their skill levels and educational needs at baseline.

In the rest of this section, we present evidence that for broad groups of youths served by Job Corps, the program had a very large effect on time spent in education and training and on the attainment of a GED (for those without a high school credential at baseline) and vocational certificate. First, we present findings for subgroups defined by age and high school credential status. We examine the experiences of (1) those 16 and 17, (2) those 18 to 24 who did not have a high school credential, and (3) those 18 to 24 who had a high school credential. Nearly all those in our sample who were 16 and 17 years old did not have a high school credential, compared to 73 percent of those 18 and 19 and 50 percent of those 20 to 24. We combined the 18- and 19-year-old dropouts with the 20- to 24-year-old dropouts, because the education and training experiences and impact findings were very similar for these groups. For similar reasons, we also combined the two older groups with a high school credential. Then, we briefly present findings on key outcomes for other youth subgroups defined by gender, residential designation status, arrest history, race, and date of application to Job Corps. We present findings using a series of figures and charts. Appendix Tables C.4 to C.6 present more details.

1. Impacts by Age and High School Credential Status

Our impact findings for subgroups defined by age and educational level at baseline were largely due to subgroup differences in the experiences of control group members. Program group experiences varied less because, as discussed in Chapter IV, all subgroups of participants received substantial amounts of education and training in Job Corps. We first discuss the control group experiences, then the impact findings.

a. Control Group Experiences

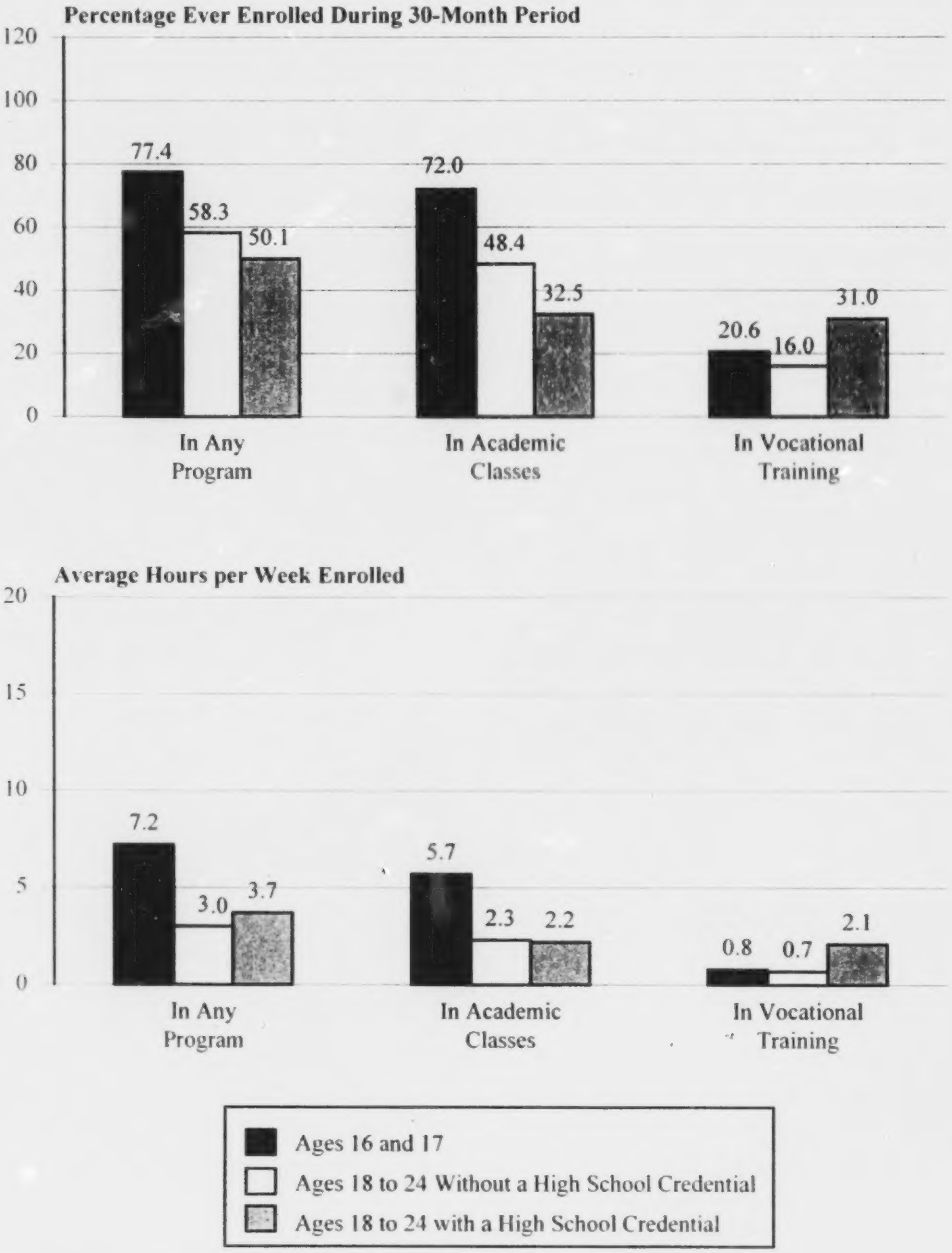
Among the control group, levels of participation in education and training programs were higher for those 16 and 17 than for the older youth (Figure V.6). About 77 percent of those 16 and 17 ever enrolled in a program during the 30-month period, compared to 58 percent of the older youth without a high school credential at baseline and 50 percent of the older graduates. Similarly, the youngest control group members spent an average of 7.2 hours per week (936 hours during the 30-month period) in programs, whereas the older groups spent only about 3.3 hours per week in programs (about 429 hours in total).

The time profile of participation in programs also differed for the younger and older control group members, although similar percentages were in programs late in the observation period (Tables C.4 to C.6). About 44 percent of the 16- and 17-year-olds were enrolled in programs during each of the first five quarters after random assignment, but the participation rate dipped to about 31 percent in quarter 7 and 24 percent in quarter 10. The participation rate for the older groups, however, remained constant at about 20 percent per quarter throughout the follow-up period. Importantly, the control (and program) group participation rates were similar for all groups during the postprogram period, so the earnings impacts were not differentially affected by differences in school enrollment rates.

The younger control group members spent more time in programs than the older ones, because they spent much more time in academic classes--but not in vocational training (Figure V.6). The typical 16- and 17-year-old control group member spent 5.7 hours per week in academic classes but

FIGURE V.6

PARTICIPATION AND HOURS PER WEEK IN EDUCATION AND TRAINING PROGRAMS FOR CONTROL GROUP MEMBERS, BY AGE AND HIGH SCHOOL CREDENTIAL STATUS AT BASELINE



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

only 0.8 hours per week in vocational training (so that nearly 90 percent of total hours spent in programs were spent in academic classes). On the other hand, the older high school completers spent more than double the hours in vocational training (an average of 2.1 hours per week) and spent an equal number of hours in academic classes.

These findings reflect the types of programs that control group members attended (Figure V.7). Many 16- and 17-year-olds attended academic programs, but fewer went to vocational programs. About half of these youth attended high school, and about 40 percent attended GED programs. Only about 18 percent attended vocational and technical schools, and about 6 percent enrolled in two-year colleges. Because most of the schooling for this group took place in high school and GED programs, it is not surprising that the youngest control group members received large amounts of academic classroom instruction and small amounts of vocational training.

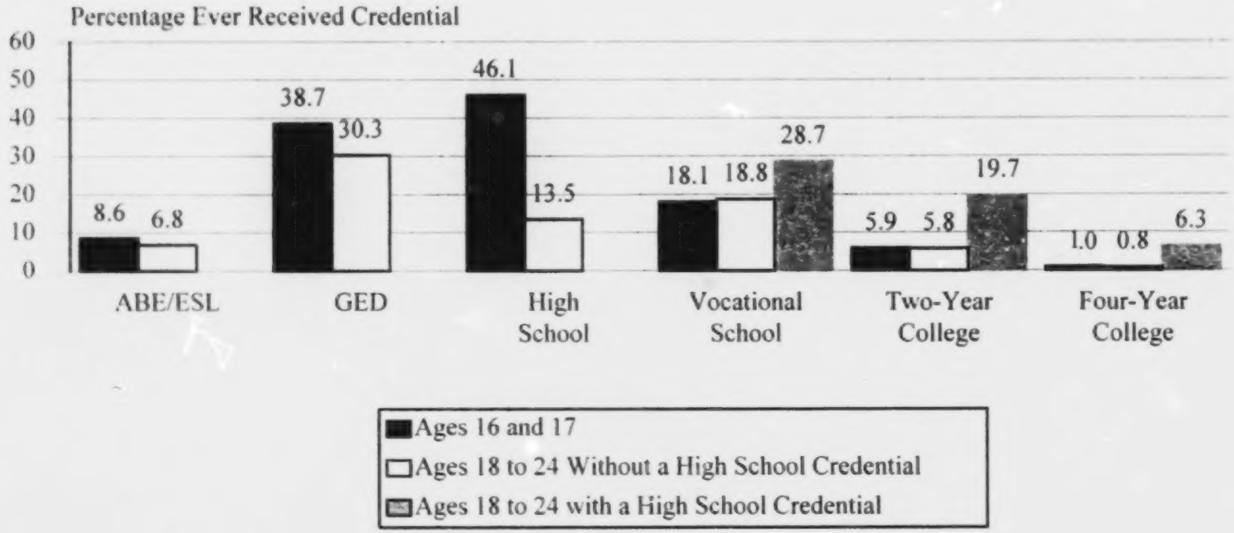
In contrast, the older graduates tended to enroll in programs that offer vocational training: nearly 30 percent enrolled in vocational schools, and 20 percent enrolled in two-year colleges. Thus, these youth received more vocational training than their counterparts. Participation rates among the older dropouts were largest in GED programs (about 30 percent) and vocational programs (about 19 percent); only about 14 percent enrolled in high school.

b. Impact Findings

The impacts on overall measures of participation in education and training programs were very large for each subgroup (Figure V.8). However, they were somewhat smaller for the 16- and 17-year-olds because of high control group participation rates for this group. The impact per eligible applicant on hours per week spent in programs was about 4.1 hours per week (533 hours in total) for the youngest group and about 7 hours per week (910 hours in total) for the two older groups.

FIGURE V.7

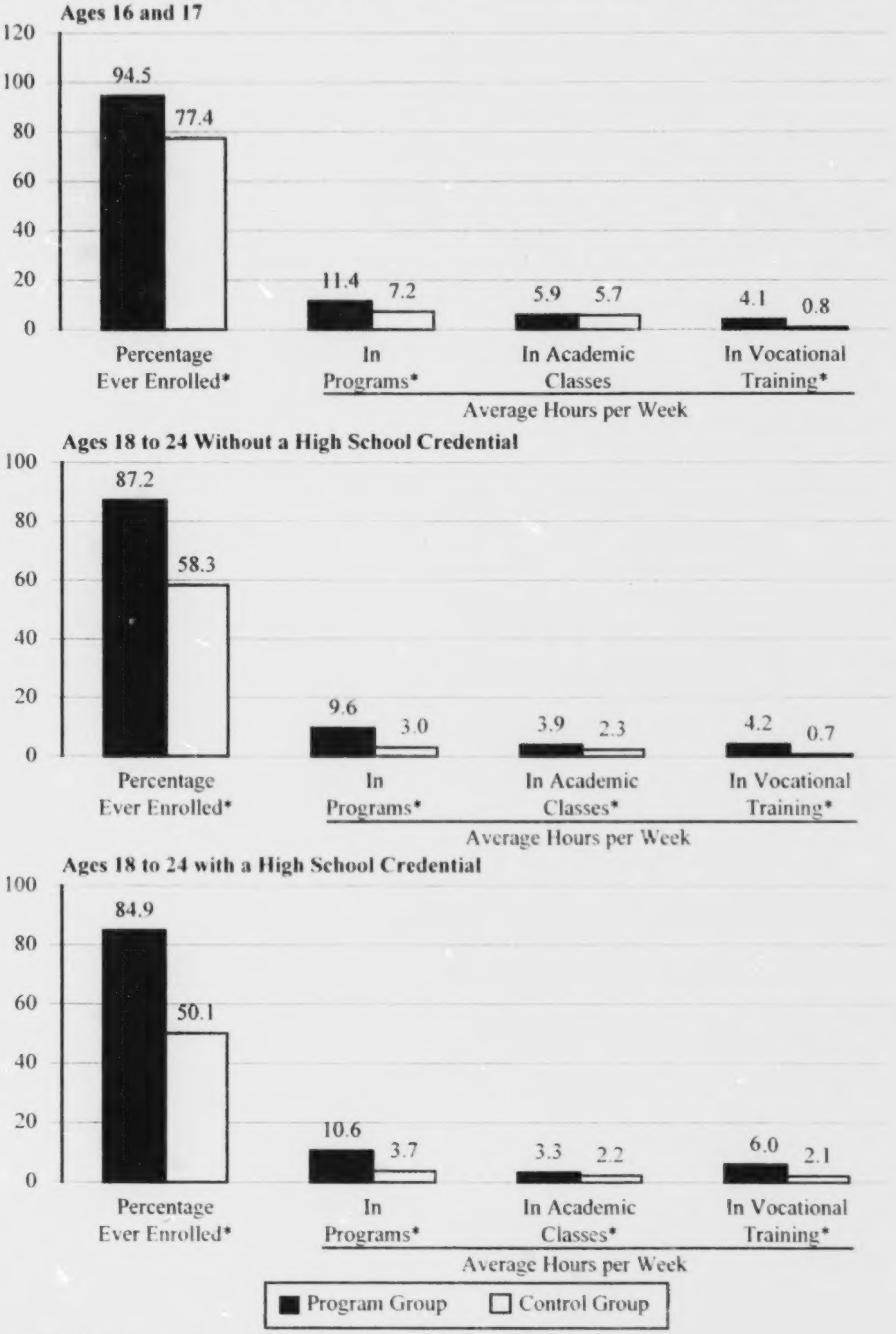
PARTICIPATION IN EDUCATION AND TRAINING PROGRAMS FOR CONTROL GROUP MEMBERS, BY TYPE OF PROGRAM, AGE, AND HIGH SCHOOL CREDENTIAL STATUS AT BASELINE



Source: Baseline, 12-month, and 30-month follow-up interviews.

FIGURE V.8

PARTICIPATION AND HOURS PER WEEK IN EDUCATION AND TRAINING PROGRAMS, BY AGE AND HIGH SCHOOL CREDENTIAL STATUS AT BASELINE


Ages 16 and 17

Ages 18 to 24 Without a High School Credential

Ages 18 to 24 with a High School Credential

Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

Impacts on time spent in academic classroom training were large and statistically significant for the older youth, but not for those 16 and 17 (Figure V.8). We find no impacts on time spent in academic classes for those 16 and 17, because many control group members in this group received intensive academic classroom instruction in high school and in GED programs. However, we find large positive impacts on the receipt of academic services for the two older groups, because the older control group members were less likely to participate in academic-intensive programs, whereas the older Job Corps participants in the program group received some academic instruction in Job Corps.

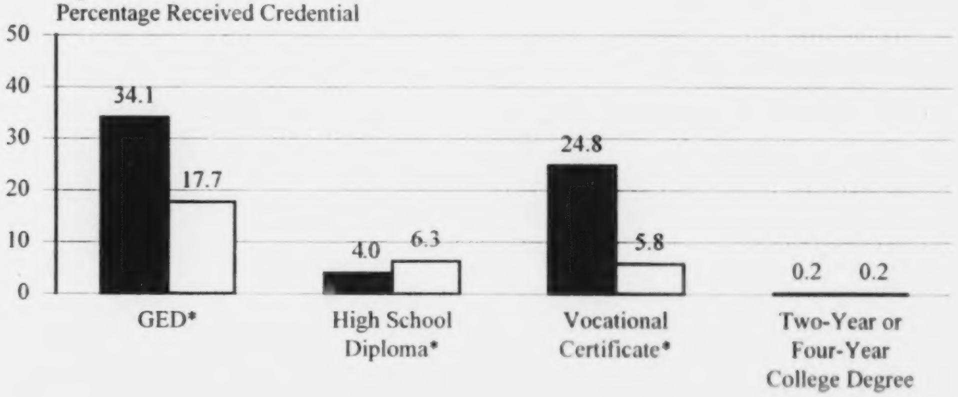
Impacts on time spent in vocational training, however, were very large and positive for each subgroup. Program group members typically received about three to four times more hours in vocational training than control group members.

Finally, we find large impacts on the receipt of certificates emphasized by Job Corps, but no impacts on the attainment of a high school diploma or college degree (Figure V.9). Impacts on the receipt of a GED were similarly large for both the younger and older dropouts. Although there were no impacts on time spent in academics for those 16 and 17, we find large impacts on the attainment of a GED, because of the emphasis that Job Corps places on it. Impacts on the receipt of a high school diploma were negative, but small, for both dropout groups, because of the low rates of high school completion among the control group (only about 5.8 percent of all control group dropouts attained a diploma). Impacts on the receipt of a vocational certificate were also very large for all groups. Finally, at 30 months, Job Corps had no effect on the receipt of a two-year or four-year college degree for those who had a high school credential at baseline.

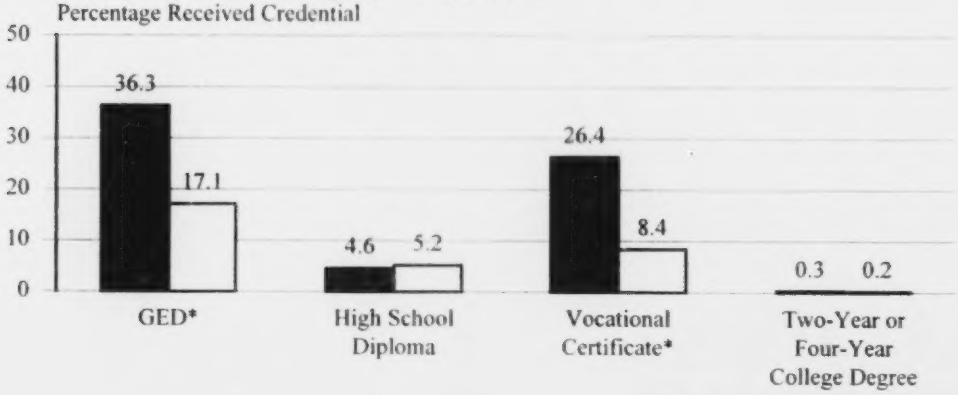
FIGURE V.9

EDUCATIONAL ATTAINMENT, BY AGE AND HIGH SCHOOL CREDENTIAL STATUS AT BASELINE

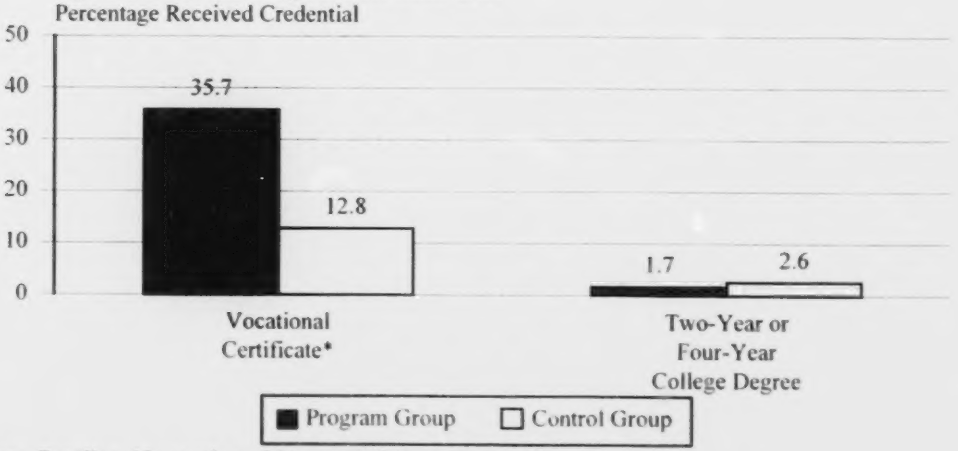
Ages 16 and 17



Ages 18 to 24 Without a High School Credential



Ages 18 to 24 with a High School Credential



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

2. Impacts for Other Key Subgroups

Table C.7 presents impact results on selected education-related outcomes for each of the following subgroups: gender, residential designation status by gender, arrest history, race and ethnicity, and application date (whether before or after ZT policies took effect). Average control group measures and impacts on these outcome measures were remarkably similar across the subgroups. Thus, Job Corps leads to large increases in participation in education and training programs and in educational attainment across diverse groups of youths served by the program.

Of particular note, we find similar impacts for those assigned to the residential and nonresidential component. This is consistent with our finding from the process analysis that nonresidential students are fully integrated into the academic and vocational components of Job Corps.

VI. EMPLOYMENT AND EARNINGS

Chapter V showed that Job Corps participation leads to large impacts on time spent in academic classes and vocational training and on the attainment of GED and vocational certificates. These large impacts could increase participants' skill levels and, hence, their labor market productivity. This increased productivity may in turn enhance the time spent employed, earnings, wage rates, and fringe benefits of former participants.

We expect negative impacts on participants' employment and earnings during the period of enrollment, because some participants would have held jobs if they had not gone to Job Corps. However, because of improvements in participants' skills, we expect positive impacts on employment and earnings after participants leave the program and after a period of readjustment. In light of the variation in the duration of program participation and the period of readjustment, it is difficult to predict when positive impacts are likely to emerge. Thus, we cannot predict in which month after random assignment the earnings of the program group were likely to have exceeded those of the control group.

This chapter presents program impacts on employment and earnings in the short term. It presents impacts for the full sample and for key subgroups during the 30 months after each youth was found eligible for Job Corps. Because program group members were engaged in Job Corps training for much of this period, and because the postprogram observation period is brief for many, these findings should be interpreted as short-term impact estimates. The subgroup findings also are preliminary, because the average postprogram period differed across subgroups as a result of differences in the timing and duration of enrollment in Job Corps. Longer-term impact findings will be obtained using 48-month follow-up interview data.

We find that Job Corps generated positive employment and earnings impacts by the end of the 30-month follow-up period. The employment and earnings of the control group were larger than those of the program group early in the follow-up period because many program group members were enrolled in Job Corps then. It took about two years from random assignment for the earnings of the program group to overtake those of the control group. By the tenth quarter (that is, months 28 to 30) after random assignment, average weekly earnings for program group members were $13 higher than for control group members ($181, compared to $168). The estimated impact per Job Corps *participant* was $18, which translates into an 11 percent gain in average weekly earnings due to program participation. These quarter 10 impacts are statistically significant at the 1 percent significance level. In addition, the positive earnings impacts were increasing slightly during the later months of the 30-month observation period (that is, between quarters 8 and 10).

Over the whole period, Job Corps participants earned about $10 per week (or $1,300 overall) less than they would have if they had not enrolled in Job Corps. This impact is statistically significant and translates into an 8 percent reduction in earnings for the average participant over the first two and a half years after being determined eligible for Job Corps.

Job Corps had small effects on the employment rate and time spent employed late in the follow-up period. As expected, the impacts on the employment measures were negative during the in-program period, but they became positive in quarter 8. In quarter 10, the impact on the employment rate was about 2 percentage points per eligible applicant (67 percent for the program group, compared to 65 percent for the control group). The quarter 10 impact on hours employed per week was 1 hour per eligible applicant (24 hours for the program group, compared to 23 hours for the control group). This impact translates to an impact of 1.4 hours per participant, or a 6 percent gain due to program participation. The impact on the percentage of weeks employed was about 2 percentage points (56 percent, compared to 54 percent). These small impact estimates are statistically significant.

The earnings gains late in the period were due to a combination of greater hours of work and higher earnings per hour. We estimate that program group members earned about $8 more per week in quarter 10 than control group members because they worked more hours, and that they earned about $5 more per week because they had higher earnings per hour. These gains sum to the $13 impact on earnings per week in quarter 10.

Program group members secured higher-paying jobs with slightly more benefits in the most recent job in quarter 10. These findings suggest that Job Corps increases participants' skill levels and, hence, productivity. In the most recent job in quarter 10, the average hourly wage rate was $0.25 higher for the employed program group than for the employed control group ($7.07, as compared to $6.82), although job tenure was typically shorter for the employed program group. Furthermore, the wage gains were similar across broad occupational categories, although similar percentages of program and control group members worked in each occupational area. In addition, employed program group members were slightly more likely to hold jobs that offered fringe benefits (such as retirement or pension benefits, health insurance, paid sick leave, and paid vacation).

Positive impacts near the end of the 30-month follow-up period were found broadly across most key subgroups of students. Some evidence indicates, however, that the program provides greater short-term gains for youths who are at particular risk of poor labor market outcomes, including very young students, females with children, and older youths who do not possess a high school credential before enrolling.

Earnings and employment impacts in quarter 10 for those assigned to the residential component were positive overall, and they were similar for residential males, females with children, and females without children. Thus, the residential program component was effective in the short term for broad groups of students.

For those assigned to the nonresidential component, quarter 10 earnings and time employed improved substantially among females with children, but no impacts were evident in the short term for females without children and for males.

In the rest of this chapter, we present details of our findings on short-term impacts on labor market outcomes. The next section discuses the impacts on employment rates, time employed, and earnings for all students. To provide insight on the nature and quality of the jobs held, we next compare the characteristics of jobs held by program and control group members. The third section presents impacts on the likelihood of being employed or engaging in educational activities (that is, engaging in an activity that improves a youth's long-run employment prospects). Finally, in the fourth section, we present impact findings for key subgroups. Appendix D contains supplementary tables.

A. IMPACTS ON EMPLOYMENT RATES, TIME EMPLOYED, AND EARNINGS

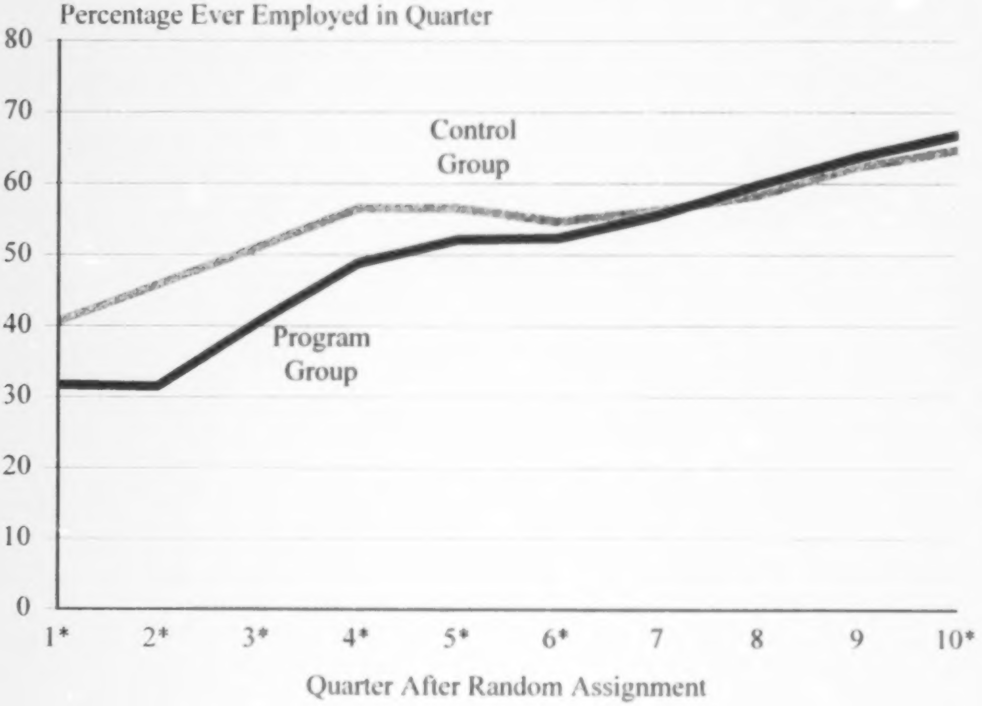
This section compares employment experiences of all control and program group members during the first 30 months after each applicant was determined eligible for Job Corps. We focus primarily on the last two quarters of the observation period, because this was a period in which most enrollees in the program group had left Job Corps.

1. Impacts on Employment Rates

Figure VI.1 displays the proportion of all program and control group members who were ever employed during each quarter (3-month period) over the 30-month period after random assignment. The quarterly employment rates of the control group show what program group members would

FIGURE VI.1

EMPLOYMENT RATES, BY QUARTER



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

have experienced if they had not had the opportunity to enroll in Job Corps. The differences between the quarterly employment rates of the program and the control group are estimated impacts per eligible applicant. Asterisks along the x-axis indicate the statistical significance of the impact estimates. Table VI.1 displays the calculations and also shows impacts per participant.

The employment rate of the control group increased over time. It was 41 percent in quarter 1, 55 percent in quarter 6, and 65 percent in quarter 10. Employment increased as the youths left school and gained work experience.[1]

The employment rate of the control group was significantly higher than that of the program group (impacts were negative) during the period when many program group members were enrolled in Job Corps. The differences narrowed over time as some program group enrollees started to leave Job Corps and take jobs. Impacts became positive by quarter 8 (that is, two years after random assignment). For example, the employment rate was about 9 percentage points lower for the program group than for the control group in quarter 1 (32 percent, compared to 41 percent), 4.5 percentage points lower in quarter 5, and 1.6 percentage points higher in quarter 8.

The impact on the employment rate increased slightly between quarters 8 and 10 (the last observed quarter) and was statistically significant at the 5 percent level in quarter 10. In quarter 10, the impact was 2 percentage points per eligible applicant and about 3 percentage points per participant (a 4 percent increase in the employment rate due to program participation).

Nearly all sample members in both the program and the control groups (about 89 percent) worked at some point during the 30-month period (Table VI.1). Control group members held

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[1] The employment rate was 43 percent in the quarter prior to random assignment and 43.5 percent in the quarter before that.

TABLE VI.1

IMPACTS ON EMPLOYMENT RATES AND THE NUMBER OF JOBS

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Percentage Employed, by Quarter After Random Assignment						
1	31.7	40.6	-8.9***	27.1	-12.2***	-31.0
2	31.5	45.8	-14.3***	25.2	-19.6***	-43.7
3	40.5	51.1	-10.6***	35.9	-14.5***	-28.8
4	48.9	56.6	-7.7***	45.8	-10.6***	-18.8
5	52.2	56.6	-4.5***	50.6	-6.1***	-10.8
6	52.4	54.7	-2.3**	51.7	-3.2**	-5.8
7	55.6	56.3	-0.6	55.4	-0.9	-1.6
8	59.9	58.4	1.6*	60.0	2.1*	3.7
9	63.8	62.4	1.4	64.5	2.0	3.1
10	66.9	64.8	2.1**	68.0	2.8**	4.3
Percentage Employed at 30 Months	56.0	53.5	2.6***	56.8	3.5***	6.6
Percentage Ever Employed	89.4	88.7	0.7	89.7	1.0	1.1
Number of Jobs (Percentages)						
0	11.1	11.6	-0.6**[d]	10.6	-0.8**[d]	-6.9
1	21.8	19.8	2.0	22.0	2.7	14.1
2	23.6	23.7	-0.1	24.1	-0.1	-0.6
3	19.4	18.8	0.6	19.8	0.8	4.4
4 or more	24.2	26.1	-1.9	23.6	-2.6	-10.0
(Average number)	2.4	2.5	-0.1**	2.4	-0.1**	-3.8
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impact per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] The significance levels pertain to statistical tests for differences in the distribution of the outcome measure for program and control group members.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

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slightly more jobs, on average, although job turnover was common for both groups--nearly half of each group had three or more jobs during the 30-month period.

2. Impacts on Time Employed

We used two measures of the time that sample members were employed during a given period: (1) the proportion of weeks employed, and (2) the number of hours worked per week. The proportion of weeks employed was calculated by dividing the total number of weeks that each youth was employed during the period by the number of weeks in the period (for example, 13 weeks for a quarter and 130 weeks for the entire 30-month period). Similarly, hours worked per week were calculated by dividing the total number of hours that the youth worked during the period by the number of weeks in the period. The measures were set to 0 for those who were not employed during the period.

Not surprisingly, the profile of the quarterly-time-employed measures follows a pattern similar to that of the quarterly employment rates (Figure VI.2, and Tables VI.2 and VI.3). Impacts were negative and statistically significant during quarters 1 to 6 and became positive in quarter 8 (about two years after random assignment). For example, the average hours worked per week during quarter 1 was about 11 hours for control group members and 7 hours for program group members (an impact of -4 hours per week). The impact on hours worked per week was -1.8 hours in quarter 5 and 0.4 hours in quarter 8.

Weeks and hours employed were greater for the program group during quarters 9 and 10, and by quarter 10, the positive impacts were statistically significant (although still small). Program group members were employed for about 56 percent of weeks in quarter 10, compared to 54 percent of weeks for control group members. Similarly, the average hours worked per eligible applicant

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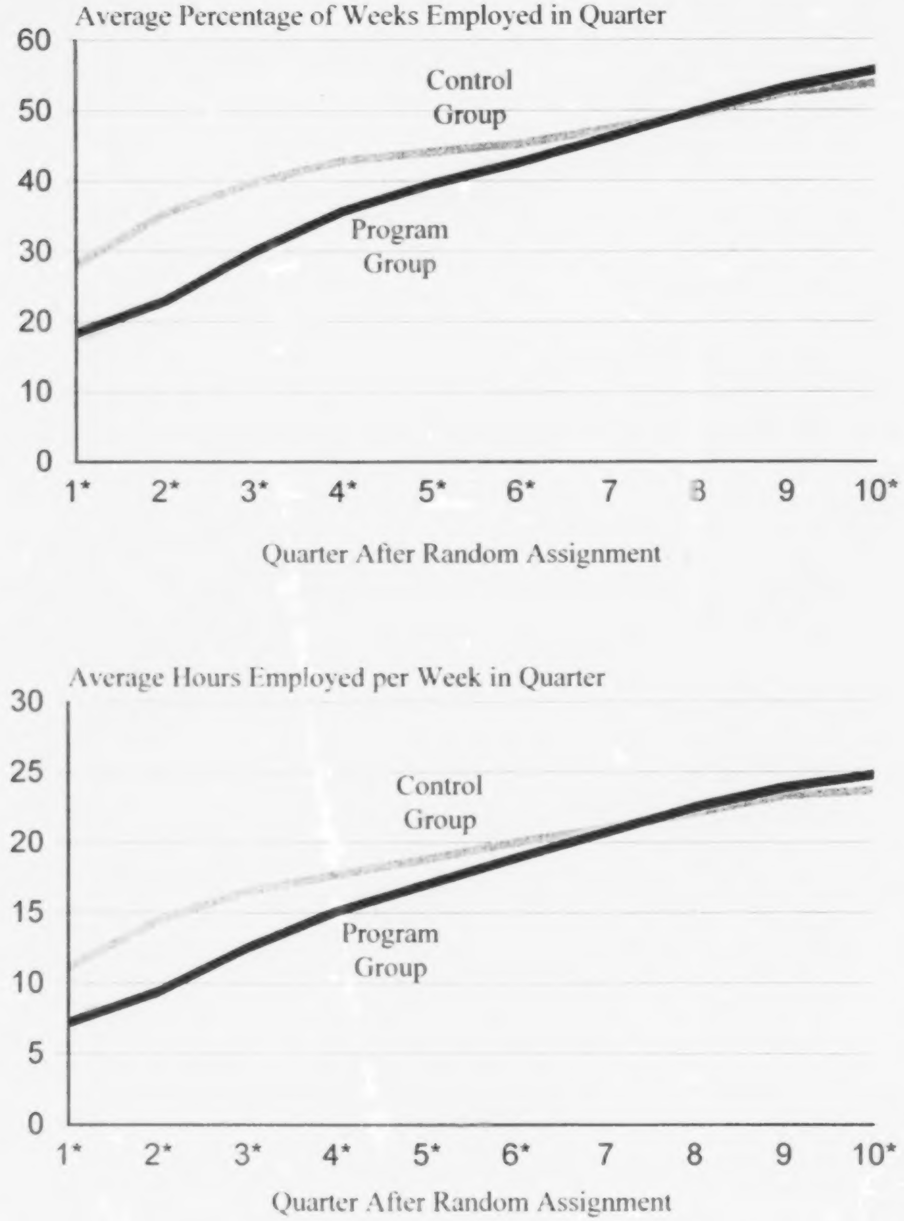
FIGURE VI.2

TIME EMPLOYED, BY QUARTER



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

TABLE VI.2

IMPACTS ON THE PERCENTAGE OF WEEKS EMPLOYED

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Average Percentage of Weeks Employed, by Quarter After Random Assignment						
1	18.4	28.1	-9.7***	13.8	-13.3***	-49.1
2	23.0	35.4	-12.4***	17.4	-17.1***	-49.5
3	30.0	39.8	-9.8***	25.3	-13.4***	-34.6
4	35.7	42.9	-7.2***	32.5	-9.9***	-23.3
5	39.6	44.1	-4.5***	37.6	-6.2***	-14.1
6	42.7	45.3	-2.6***	41.7	-3.5***	-7.7
7	46.2	47.4	-1.2	46.0	-1.6	-3.4
8	49.9	49.5	0.4	49.7	0.6	1.2
9	53.2	52.5	0.7	53.4	1.0	1.9
10	55.7	53.8	1.9**	56.4	2.6**	4.8
Percentage of Weeks Employed During the Entire 30-Month Period						
0	11.6	12.3	-0.7***[d]	11.3	-0.9***[d]	-7.5
0 to 10	10.3	8.6	1.7	11.0	2.3	27.2
10 to 25	18.0	14.9	3.1	18.9	4.2	28.8
25 to 50	24.1	21.9	2.2	25.6	3.0	13.4
50 to 75	21.8	21.3	0.5	22.5	0.7	3.1
75 or more	14.2	21.0	-6.8	10.7	-9.4	-46.6
Average Percentage of Weeks Employed During the Entire 30-Month Period	37.8	42.3	-4.5***	36.0	-6.2***	-14.6
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] The significance levels pertain to statistical tests for differences in the distribution of the outcome measure for program and control group members.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE VI.3

IMPACTS ON HOURS EMPLOYED PER WEEK

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Average Hours Employed per Week, by Quarter After Random Assignment						
1	7.2	11.1	-3.9***	5.2	-5.4***	-50.7
2	9.4	14.5	-5.1***	7.0	-7.0***	-50.0
3	12.5	16.5	-4.0***	10.5	-5.5***	-34.4
4	15.1	17.7	-2.6***	13.6	-3.6***	-20.9
5	17.0	18.8	-1.8***	16.1	-2.5***	-13.2
6	18.9	20.0	-1.1**	18.4	-1.5**	-7.5
7	20.7	21.0	-0.2	20.7	-0.3	-1.4
8	22.5	22.1	0.4	22.5	0.5	2.4
9	23.9	23.3	0.6	24.1	0.8	3.5
10	24.8	23.7	1.0**	25.3	1.4**	5.8
Hours Employed per Week During the Entire 30-Month Period (Percentage)						
0	11.8	12.5	-0.7***[d]	11.4	-1.0***[d]	-7.8
0 to 5	14.7	13.0	1.8	15.5	2.4	18.4
5 to 15	26.3	23.4	2.8	27.2	3.9	16.7
15 to 25	20.6	18.8	1.8	21.5	2.5	13.1
25 to 35	14.7	16.5	-1.8	14.9	-2.4	-14.0
35 or more	11.9	15.8	-3.9	9.6	-5.4	-36.1
Average Hours Employed per Week During the Entire 30-Month Period	16.9	18.7	-1.8***	16.2	-2.4***	-13.1
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] The significance levels pertain to statistical tests for differences in the distribution of the outcome measure for program and control group members.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

increased from 24 to 25 hours in quarter 10. These differences translate to increases of about five percent in the weeks and hours worked by program participants.

Over the entire 30-month period, control group members worked significantly more than program group members, who spent more time in education and training programs and whose employment rate did not "overtake" that of the control group until quarter 8. Control group members spent an average of about 42 percent of weeks employed, compared to about 38 percent for program group members (an impact of -4.5 percentage points, or about 6 weeks over 30 months). Similarly, the average control group member worked 1.8 hours per week more than the average program group member, or about 230 hours more over the entire 30-month period.

3. Impacts on Earnings

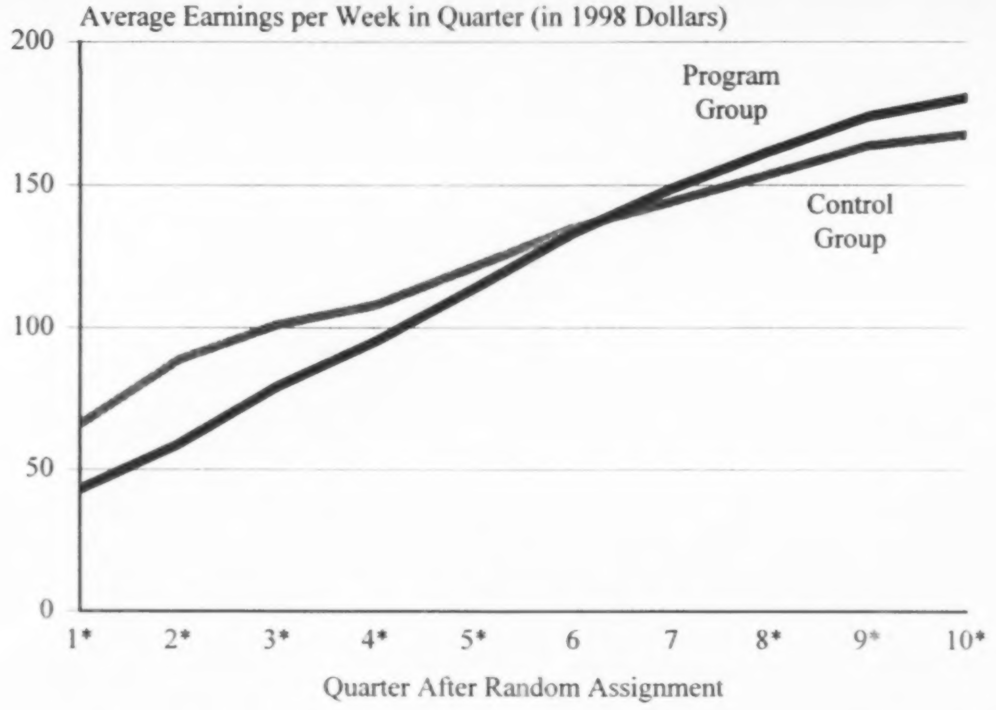
Earnings are the most comprehensive employment-related measure because they reflect both work effort and earnings per hour. To examine earnings impacts, we calculated period-specific earnings per week from all jobs for each sample member. Earnings per week were calculated by dividing total period earnings by the number of weeks in the period. Thus, the measure represents the earnings of a youth in a typical week during the period. Earnings were measured in 1998 dollars.

Earnings per week increased over time for the control group (Figure VI.3 and Table VI.4). For example, control group members earned an average of $66 per week in quarter 1, $122 in quarter 5, and $168 in quarter 10. Earnings increased because both hours worked and hourly wage rates increased as the youths left school and gained work experience.

Interestingly, control group earnings decreased in the recent period prior to random assignment (not shown). Average earnings per week was $49 in the quarter prior to random assignment and $62 in the quarter before that. This preprogram dip in earnings could have been due to youths working

FIGURE VI.3

AVERAGE EARNINGS PER WEEK, BY QUARTER



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

TABLE VI.4

IMPACTS ON EARNINGS

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Average Earnings per Week, by Quarter After Random Assignment (in 1998 Dollars)						
1	43.1	65.9	-22.8***	30.9	-31.3***	-50.3
2	59.1	88.7	-29.6***	42.9	-40.7***	-48.7
3	79.3	101.1	-21.8***	65.0	-29.9***	-31.5
4	95.3	108.1	-12.9***	84.4	-17.6***	-17.3
5	113.9	121.5	-7.6**	107.5	-10.4**	-8.8
6	133.3	135.0	-1.7	129.3	-2.4	-1.8
7	148.8	144.3	4.5	147.8	6.2	4.4
8	161.9	153.9	8.0**	160.8	10.9**	7.3
9	174.1	163.8	10.3***	174.4	14.1***	8.8
10	180.6	167.7	12.9***	183.9	17.7***	10.7
Earnings per Week During the Entire 30-Month Period (Percentage)						
0	9.0	9.5	-0.4**[d]	8.7	-0.6**[d]	-6.3
1 to 25	15.3	14.7	0.6	15.7	0.8	5.3
25 to 75	22.0	19.9	2.1	22.7	2.9	14.7
75 to 150	23.0	22.1	0.9	24.1	1.3	5.6
150 to 225	15.2	16.6	-1.4	15.3	-1.9	-11.1
225 or more	15.4	17.2	-1.8	13.5	-2.5	-15.5
Average Total Earnings per Week During the Entire 30-Month Period (in 1998 Dollars)	116.0	123.4	-7.4***	110.8	-10.2***	-8.4
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] The significance levels pertain to statistical tests for differences in the distribution of the outcome measure for program and control group members.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

less in anticipation of enrolling in Job Corps, or to particularly poor labor market experiences (which could have induced them to apply to Job Corps).[2]

The general pattern of the earnings impacts over time is similar to that of the employment impacts. However, positive impacts on earnings emerged earlier, and the earnings impacts were larger late in the follow-up period. Average weekly earnings were significantly higher for control group members than for program group members during the first five quarters after random assignment. The impacts were most negative in quarters 1 to 3 and became smaller in quarters 4 to 6, as participants started leaving Job Corps. Control group members earned an average of about $23 more per week during quarter 1, $13 more per week during quarter 4, and less than $8 more per week during quarter 5.

Earnings impacts became positive in quarter 7 and continued to grow in quarters 8 to 10. They were statistically significant in quarters 8 to 10. In quarter 10, program group members earned an average of about $181 per week, compared to $168 per week for control group members. This $13 impact per eligible applicant translates to an $18 impact per program participant. Participants earned an average of 11 percent more per week in quarter 10 than they would have if they had not enrolled in the program.

Over the whole period, Job Corps participants earned about $10 per week (or $1,300 overall) less than they would have if they had not enrolled in Job Corps. This impact is statistically significant and translates into an eight percent reduction in earnings for the average participant over the first two and one half years after being determined eligible for Job Corps.

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[2] The earnings dip occurred for all age groups, although the dip was larger for the older youths. Average earnings per week decreased from $33 to $28 for those 16 and 17, and from $97 to $72 for those 20 to 24.

By the end of the 30-month follow-up period, similar percentages of program and control group members were in education programs--about 16 percent of both groups in the last week in month 30. Consequently, it is unlikely that the earnings and employment impact estimates late in the 30-month period were greatly affected by differences across the research groups in school enrollment rates. Earnings of both groups will probably increase as more sample members leave their education programs and as the youths gain work experience and mature. Those in education programs late in the 30-month period were likely to have been in postsecondary schools or to have been long-stayers in Job Corps. With more training and maturity, these youths can be expected to have relatively high earnings once they leave their programs. Because some youths were still receiving training and others had only recently completed it, we must treat the 30-month findings as short-term and interpret them cautiously. Analysis of youths' experiences during the period from 30 to 48 months after random assignment will be critical for forming a judgment about whether and how Job Corps affects participants' employment and earnings.

4. Decomposition of Impacts on Earnings in Quarter 10 into Its Components

Earnings over a given period are the product of hours worked during the period and earnings per hour. As discussed, we find positive impacts on both earnings and hours worked in quarter 10. We also find a positive impact of $0.21 on earnings per hour in quarter 10 ($7.28 for the program group and $7.08 for the control group).[3]

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[3] This $0.21 impact was calculated using Tables VI.3 and VI.4 and noting that hourly earnings in quarter 10 was $7.28 ($180.6 earned/24.8 hours worked) for the program group and $7.08 ($167.7 earned/23.7 hours worked) for the control group.

To assess the extent to which the earnings impact was due to the impact on hours worked and how much was due to the impact on hourly earnings, we express average earnings per week for program group members as follows:

$$(1) \quad \bar{E}_P = \frac{\bar{E}_P}{\bar{H}_P}\bar{H}_P = \bar{W}_P\bar{H}_P,$$

where $\bar{E}_P$ is average earnings per week for the program group, $\bar{H}_P$ is average hours worked per week, and $\bar{W}_P$ is hourly earnings (that is, average earnings divided by average hours).[4] Average earnings for the control group can be written in the same way, and thus impacts on earnings per week can be expressed as follows:

$$(2) \quad (\bar{E}_P - \bar{E}_C) = \bar{W}_P\bar{H}_P - \bar{W}_C\bar{H}_C.$$

If we add and subtract the term $\bar{W}_P\bar{H}_C$ in equation (2) and rearrange terms, then equation (2) becomes:

$$(3) \quad (\bar{E}_P - \bar{E}_C) = \bar{W}_P(\bar{H}_P - \bar{H}_C) + \bar{H}_C(\bar{W}_P - \bar{W}_C).$$

Equation (3) decomposes the impact on earnings into a weighted average of the impact on hours employed per week and the impact on hourly earnings, where the weights are average hourly earnings for the program group and average hours worked per week for the control group, respectively.[5]

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[4] This expression is only an *approximation* to the average wage received by the program group, because to calculate the average wage, it would be necessary to divide earnings by hours worked for *each* youth, and then take the average of these individual values. This procedure is difficult to implement for those who did not work (because we would be dividing by zero hours worked). In Section B below, we discuss hourly wages for those employed in quarter 10.

[5] One can instead add and subtract the term $\bar{W}_C\bar{H}_P$ from equation (2) to derive a slightly (continued...)

Using equation (3), we find that about 62 percent of the earnings impact in quarter 10 was due to the impact on hours worked and that 38 percent was due to the impact on earnings per hour. Stated another way, program group members earned about $8 more per week because they worked more hours, and earned about $5 more per week because they had higher earnings per hour.

5. The Overtaking Point

Average program group earnings overtook average control group earnings in quarter 7, and the overtaking point for the employment rate and hours worked was in quarter 8. Thus, it took nearly two years until positive employment-related impacts emerged.

The average program group participant enrolled in Job Corps about 1.5 months after random assignment and remained in the program for eight months. Thus, by quarter 4, the typical program member had left Job Corps. Yet, while program group members' employment and earnings increased more rapidly than those of the control group throughout the early and middle part of the 30-month period, program group members' employment and earnings did not overtake those of the control group for nearly a year after the typical program group member had left Job Corps.

Many factors could have influenced the timing of the "overtaking point" (the point at which program impacts became positive) for the employment and earnings outcomes. The timing of the overtaking point was due in part to (1) the length of time that each participant spent in the program, (2) the length of time until potential program benefits took effect after each student left the program, (3) the size of the program benefit for each student, and (4) the interaction among these three factors. However, these same factors also affected the outcomes of the control group, because, as discussed, many of these youth also enrolled in education programs. Furthermore, sample members

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[5] (...continued)
different set of weights in equation (3). We obtained the same conclusions using either approach.

participated in programs at different points during the follow-up period because they entered their programs at different points and had different durations of stay. Thus, it is very difficult to disentangle the factors that can explain the timing of the overtaking point.

However, we offer several possible reasons that positive program impacts on the employment and earnings outcomes did not occur until about two years after random assignment. First, impacts on participation in education programs were relatively large until quarter 7, primarily because of intensive program group participation in Job Corps. For example, in quarter 6, the impact per participant on the enrollment rate in education programs was about 8 percentage points, and about 15 percent of program group participants were still in Job Corps. Second, it took time for some participants to find jobs after they left the program. For example, in the year after leaving the program, about 22 percent of participants did not work, and 16 percent first worked more than six months after leaving.[6] In addition, about 32 percent of program terminees enrolled in another education program during the one-year period. To be sure, control group members may have also had a period of readjustment after they left their programs. However, the period of readjustment for Job Corps participants may have been longer because most were residential students and had been away from home for a relatively long time.

6. Effects of the Strong Economy

The 30-month follow-up data cover the period from November 1994 to August 1998. This was a period of strong economic growth. The unemployment rate for the civilian population of those 16 and older was 5.5 percent in late 1994, which was low by recent historical standards. The rate decreased to about 4.5 percent in mid-1998. Similarly, the unemployment rate for those 16 to 19 decreased from about 17 percent to under 15 percent during the same period. In addition, inflation was low throughout the period.

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[6] These figures were calculated using only program group members who enrolled in Job Corps and who left the program at least a year before month 30 (that is, who left before month 18).

It is impossible to know whether employment and earnings impacts would have differed in a weaker economy. It is likely that employment rates and earnings were higher in the strong economy than they would have been in a weaker economy. However, they were likely to have been higher for *both* program and control group members.

It is unclear which group benefited more. The strong economy might have increased program group earnings more, if the tight labor market led to a higher demand and premium for more skilled labor. This is consistent with the fact that the returns to education have been increasing during the past 20 years. On the other hand, the strong economy could have increased control group earnings more, because it may have been easier for some lower-skilled control group members to obtain jobs. Katz and Krueger (1999) provide evidence that the strong economy has increased the earnings of lower-wage workers since the mid-1990s. Thus, it is unclear whether the program or the control group benefited more from the strong economy over the study follow-up period.

Our impact estimates are probably representative of program effects generally. Unemployment rates are high for disadvantaged youth even in good economic times. In addition, skill levels are modest for most youths served by Job Corps, so impact estimates would probably not vary substantially as the demand changed for workers at different skill levels.

B. DIFFERENCES IN HOURLY WAGES AND OTHER JOB CHARACTERISTICS

In this section, we examine the hourly wage and other characteristics of jobs held by program and control group members during quarter 10, including job tenure, usual hours worked per week, weekly earnings, occupations, types of employers, and available fringe benefits.

The analysis uses information on the most recent job held by sample members during the tenth quarter after random assignment. Youth who were not employed during this period were excluded from the analysis. Because we included only employed sample members in this analysis and because Job Corps participation might have affected which individuals were employed, differences in job characteristics should not be interpreted as impacts of the program. To clarify this limitation, suppose that employment gains due to participation in Job Corps were concentrated among students who had lesser skills and ability and received lower wages. In this case, the employed program group would include a higher proportion of lower-skill/lower-wage workers than the employed control group. Consequently, differences in the average hourly wage rates of employed program and employed control group members would be a downwardly biased estimate of the true impact of Job Corps on the hourly wage rate of a particular participant.

To investigate whether the offer of Job Corps participation might have resulted in differences in the characteristics of employed sample members, we compared baseline characteristics and preprogram experiences of program and control group members who worked in quarter 10. The observable characteristics of workers in the program and control groups were similar on average (not shown), which is consistent with the finding that Job Corps had only small effects on the quarter 10 employment rate. To be sure, some *unmeasured* differences between the two groups may have been correlated with the types of jobs held by the youths. In our judgment, however, simple program and control group comparisons are suggestive of program impacts on the characteristics of jobs held by participants, although these estimates should be interpreted with caution. To reinforce this distinction, we do not refer to these differences as impacts. In addition, we present differences per eligible applicant but not per program participant, because the assumptions needed to obtain estimates for participants are less tenable for these outcomes, which are conditional on other outcomes.

The comparisons lead to several conclusions:

- The average hourly wage rate was $0.25 higher for the employed program group than for the employed control group ($7.07 as compared to $6.82), although job tenure was typically shorter for the employed program group.
- Job Corps did not alter the distribution of workers across broad occupational categories, and the wage gains were similar across these broad occupations.
- Employed program group members were more likely to hold jobs that offered fringe benefits.

Thus, the evidence suggests that increases in their average skill level enabled program group members to secure higher-paying jobs with more benefits.

1. Differences in Job Tenure, Hours Worked, Hourly Wages, and Weekly Earnings

A slightly higher percentage of program group than control group members were employed in quarter 10--67 percent, compared to 65 percent of control group members (Table VI.5). Only these workers (4,751 program group and 2,815 control group members) were used in the analysis.

Most employed youths had held their jobs for a short time, although control group members typically had longer job tenure--an average of 8.7 months, compared to 7.9 months for the employed program group members (Table VI.5). About 30 percent of the employed control group had been on their jobs for at least one year, compared to 25 percent of the employed program group.

These differences in job tenure by research status are reasonable in light of the longer time program group members spent in training. The finding that most youths had short job tenure is also consistent with our finding that many youths held several jobs during the 30-month period, which suggests that job turnover was common.

TABLE VI.5

EMPLOYMENT TENURE, HOURS, AND HOURLY WAGES IN THE MOST RECENT JOB IN QUARTER 10

(Percentages)

Outcome Measure	Program Group	Control Group	Difference
Employed in Quarter 10	66.9	64.8	2.1**
Number of Months on Job[a]			
Less than 1	11.1	11.1	0.0***[b]
1 to 3	22.1	20.3	1.8
3 to 6	21.2	19.9	1.3
6 to 12	20.8	19.5	1.3
12 or more	24.8	29.2	-4.5
(Average months)	7.9	8.7	-0.8***
Usual Hours Worked per Week[a]			
Less than 20	4.4	5.3	-0.9
20 to 30	9.5	9.7	-0.2
30 to 39	13.7	14.9	-1.2
40	35.3	34.1	1.2
More than 40	37.1	36.0	1.0
(Average hours)	41.8	41.2	0.6*
Hourly Wage[a]			
Less than $4.50	5.5	6.2	-0.7***[b]
$4.50 to $6.00	29.3	32.3	-3.0
$6.00 to $7.50	32.1	33.0	-0.9
$7.50 to $9.00	17.1	15.3	1.8
$9.00 or more	15.9	13.2	2.7
(Average hourly wage in dollars)	7.07	6.82	0.25***
Weekly Earnings[a]			
Less than $150	11.8	13.3	-1.5***[b]
$150 to $225	20.3	23.2	-2.9
$225 to $300	27.1	26.6	0.5
$300 to $375	20.0	18.3	1.6
$375 or more	20.8	18.5	2.3
(Average weekly earnings in dollars)	297.6	283.3	14.3***
Sample Size	**7,311**	**4,476**	**11,787**

TABLE VI.5 *(continued)*

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimates pertain to those employed in quarter 10. Because these estimates are conditional on being employed, they are not impact estimates.

[b] The significance levels pertain to statistical tests for differences in the distribution of the outcome measure for program and control group members.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

Most employed youths in both research groups were employed full-time. On average, program and control group members worked more than 40 hours per week, and more than 85 percent worked at least 30 hours. The small differences in hours worked by research status are consistent with our finding of small program impacts on hours worked in quarter 10.

Differences in hourly wage rates were also small, but they are statistically significant. Employed program group members earned an average of $0.25 more per hour than employed control group members in their most recent job in quarter 10 ($7.07, compared to $6.82).[7] Similarly, about one-third of the program group earned $7.50 or more per hour, compared to 28 percent of the control group. Interestingly, program group members' wages were higher even though their average job tenure was nearly a month shorter.[8]

Increases in the skill level of program participants probably led to increases in labor market productivity and, hence, to higher wages. It is also possible that the higher wages of the program group were due to placement assistance they received, which increased their chances of finding a job that matched their skills. However, as reported in Chapter IV, few program participants reported that they received significant placement assistance. Thus, it is likely that the hourly wage gains were due only in small part to the Job Corps placement component.

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[7] The figure for the program group includes both program participants and no-shows. The average hourly wage for program participants only was $7.05.

[8] We also estimated multivariate models (such as tobit models) to obtain program effects on hourly wage rates. These models controlled for both observable and unobservable differences between the two groups of workers. These results were very similar to the simple program and control group differences.

2. Differences in Occupations

The follow-up interviews collected information on the nature of the work performed on each job during the 30-month follow-up period, and the responses were assigned two-digit Standard Occupational Classification (SOC) codes.[9] Occupations were then aggregated into eight broad categories according to two main criteria: (1) each category should correspond to major vocational areas offered in Job Corps, and (2) sample sizes in each category should be large enough to support reasonably precise comparisons between the program and control groups.

Job Corps did not shift workers among the broad occupations in which sample members worked (Table VI.6). About 22 percent of both groups worked in the service occupations (such as food and health service). An additional 20 percent worked in construction occupations. About 13 percent worked in sales, and an equal percentage were mechanics, repairers, or machinists. Less than 10 percent were in clerical occupations, private household occupations (such as building and apartment maintenance, babysitting, and child care), or agricultural or forestry trades.

The types of employers that the employed youths worked for were nearly identical. Most youths worked for a private company. Only a small percentage worked for the government (eight percent), were self-employed (five percent), or were in the military (two percent).

3. Differences in Hourly Wages Within Occupations

Similar percentages of the employed program and control group members were in each occupational area. However, the average hourly wage was higher for the employed program group. Thus, there must have been differences between the wages of program and control group members *within* occupations. An important issue is whether these wage gains were concentrated in selected occupations or occurred uniformly across occupations.

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[9] The responses did not usually contain enough detail to be assigned three-digit SOC codes.

TABLE VI.6

OCCUPATIONS AND TYPE OF EMPLOYER ON THE MOST RECENT JOB IN QUARTER 10
(Percentages)

Outcome Measure	Program Group	Control Group	Difference
Percent Employed in Quarter 10	66.9	64.8	2.1**
Occupation[a]			
Services	23.6	21.7	1.9
Sales	12.5	13.9	-1.4
Construction	20.2	21.2	-1.0
Private household	6.7	6.7	-0.1
Clerical	9.4	9.4	0.0
Mechanics/repairers/machinists	12.5	11.3	1.2
Agriculture/forestry	2.8	3.1	-0.3
Other	12.3	12.7	-0.4
Type of Employer[a]			
Private company	83.9	84.2	-0.3
Military	2.1	2.0	0.1
Federal government	1.9	1.8	0.1
State government	3.7	2.8	0.9
Local government	2.5	3.0	-0.5
Self-employed	4.5	5.0	-0.5
Working without pay in a family business or as a favor	0.6	0.4	0.2
Other	0.8	0.8	0.0
Sample Size	**7,311**	**4,476**	**11,787**

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimates pertain to those employed in quarter 10. Because these estimates are conditional on employment, they are not impact estimates.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

In general, the wage gains occurred in most occupation groups (Table VI.7). Employed program members had higher wages in six of the eight occupational areas, including higher-paying occupations (for example, mechanics, repairers, and machinists) and lower-paying occupations (for example, private household occupations). Thus, participants probably obtained jobs requiring higher skill levels in most occupational areas.

4. Differences in the Availability of Job Benefits

The availability of job benefits is another indicator of job quality. Many, though by no means all, employed control group members were receiving the major fringe benefits in the jobs they held in quarter 10 (Table VI.8). About 48 percent received health insurance, about 54 percent had paid vacation, 39 percent had paid sick leave, and about 38 percent had retirement or pension benefits.

Job Corps appears to have had small effects on the availability of benefits on the job. Employed program group members were more likely to have each type of benefit available than were employed control group members. The differences were small, though many are statistically significant. For example, about 41 percent of the program group had retirement or pension benefits, compared to 38 percent of the control group (a statistically significant increase of 3 percentage points, or nearly 8 percent). These findings provide additional evidence that Job Corps participants obtained better jobs as a result of their gains in skill level.

C. IMPACTS ON PARTICIPATION IN ANY ACTIVITY

Both current employment and current education and training are likely to improve youths' long-run employment prospects. Each of these activities provides skills and experiences that employers value. In this section, we examine the extent to which eligible Job Corps applicants engaged in either or both of these activities.

TABLE VI.7

HOURLY WAGES BY OCCUPATION FOR THOSE EMPLOYED IN QUARTER 10

	Average Hourly Wage (in Dollars)		
Occupation	Program Group	Control Group	Difference[a]
Service	6.50	6.45	.05
Sales	6.32	6.32	.00
Construction	7.63	7.30	.33**
Private Household	5.78	5.37	.40
Clerical	7.44	7.15	.28*
Mechanics/Repairers/Machinists	7.85	7.30	.55***
Agriculture/Forestry	6.92	7.08	-.16
Other	7.67	7.24	.43
Sample Size	**4,751**	**2,815**	**7,566**

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Because these estimates are conditional on employment, they are not impact estimates.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE VI.8

BENEFITS AVAILABLE ON THE MOST RECENT JOB IN QUARTER 10 FOR THOSE EMPLOYED

(Percentages)

Benefits Available[a]	Program Group	Control Group	Difference
Health Insurance	49.9	48.3	1.6
Paid Sick Leave	41.5	38.5	3.0***
Paid Vacation	55.7	54.3	1.4
Child Care Assistance	14.7	12.8	1.9**
Flexible Hours	54.9	53.2	1.8
Employer-Provided Transportation	19.0	18.1	0.9
Retirement or Pension Benefits	41.0	38.1	2.9**
Dental Plan	42.2	39.4	2.8**
Tuition Reimbursement or Training Course	25.3	22.4	2.9***
Sample Size	**4,751**	**2,815**	**7,566**

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimates pertain to those employed in quarter 10. Because these estimates are conditional on employment, they are not impact estimates.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

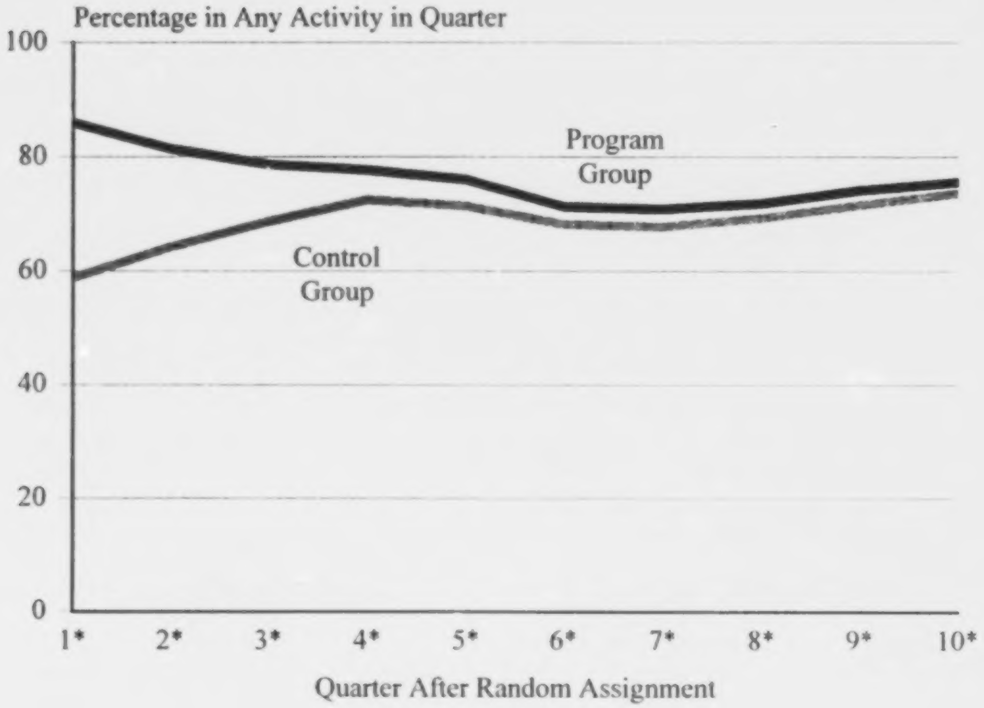
Chapter V showed that program group members were more likely than control group members to participate in education and training programs during most of the follow-up period. The impacts were largest in the early part of the follow-up period, when most program group members were enrolled in Job Corps, decreased as participants left Job Corps, and were very small by quarter 10. Conversely, control group members worked more than program group members during the early part of the follow-up period, and impacts on employment did not become positive until quarter 8. To assess the extent to which these opposing impact trends offset each other, we calculated program impacts on being either employed or in an education or training program, by quarter and over the entire 30-month period.

More than 58 percent of control group members worked or engaged in education or training during each quarter of the follow-up period (Figure VI.4 and Table VI.9). The percentage of the control group in an activity increased during the first year after random assignment (from 59 percent in quarter 1 to 73 percent in quarter 4) because both employment and school enrollment rates increased. The percentage remained relatively constant after the first year (it was 74 percent in quarter 10), because increases in the employment rate offset declines in enrollment in school. Nearly all control group members either worked or undertook education or training at some point during the 30-month period. Since all these youths had made the decision to apply to Job Corps, this high level of productive activity is not surprising.

Estimated impacts on working or being in school were positive and statistically significant in each quarter of the follow-up period. The impacts were largest during the first year after random assignment, because most program group members were enrolled in Job Corps then. The program group's higher rates of participation in education or training during this period more than offset the higher employment rates of the control group.

FIGURE VI.4

PERCENTAGE EMPLOYED OR IN SCHOOL, BY QUARTER



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

TABLE VI.9

IMPACTS ON BEING EMPLOYED OR IN AN EDUCATION OR TRAINING PROGRAM

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Percentage in Any Activity, by Quarter After Random Assignment						
1	86.0	58.8	27.2***	96.0	37.3***	63.5
2	81.4	64.2	17.2***	88.6	23.6***	36.3
3	78.7	68.7	10.0***	83.5	13.8***	19.8
4	77.7	72.5	5.3***	80.7	7.2***	9.8
5	76.0	71.4	4.5***	78.6	6.2***	8.6
6	71.3	68.2	3.1***	72.9	4.2***	6.1
7	70.9	67.8	3.1***	72.3	4.3***	6.3
8	71.9	69.3	2.6***	72.8	3.5***	5.1
9	74.2	71.6	2.6***	75.5	3.6***	5.0
10	75.6	73.7	1.9**	76.8	2.7**	3.6
Percentage Any Activity at 30 Months	64.4	61.8	2.6***	65.3	3.6***	5.8
Percentage Ever in an Activity	98.9	95.7	3.3***	100.0	4.5***	4.7
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

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The impacts were positive, but they were much smaller between quarters 4 and 7, because impacts on participation in education and training programs decreased as more program group members left Job Corps and because the declines in education were not fully offset by increases in employment. Impacts in the later part of the follow-up period (quarters 8 to 10) remained positive (though small), because both employment and school participation rates of the program group were slightly higher. The impact per participant in quarter 10 was 2.7 percentage points, a 3.6 percent gain due to Job Corps participation.

Impacts on the proportion of weeks and hours per week spent working or in an education or training program follow the same pattern (Tables D.1 and D.2). They were positive and statistically significant in all quarters, but largest early in the follow-up period, when most program group members were enrolled in the program. In sum, Job Corps had a positive effect on promoting activities aimed at improving participants' long-run employment prospects.

D. FINDINGS FOR SUBGROUPS

Overall, Job Corps produced modest gains in employment and earnings starting about two years after youths applied for the program and were determined eligible. Positive impacts for the full sample, however, could mask important differences in program impacts across subgroups of students. An important question is whether these positive impacts were similar for important subgroups of students or were concentrated among certain groups. This section provides preliminary evidence on this question.

After briefly summarizing the subgroup findings, we present detailed findings for the most important subgroups--those defined by age, gender, and residential or nonresidential assignment. We present the full detail on employment and earnings impacts for these groups. In the third section, we discuss findings for other subgroups of interest--whether the youth had a high school diploma or GED at baseline, whether the youth was ever arrested before application, race and ethnicity, and whether the youth applied to Job Corps before or after the new ZT policies became effective. For these subgroups, the discussion focuses on employment and earnings in quarter 10.

For each subgroup, impacts per eligible applicant and impacts per program participant are presented. However, it is especially important to focus on the impacts per participant in the subgroup analysis. Rates of Job Corps enrollment among the program group differed somewhat across the subgroups (as discussed in Chapter IV). Consequently, the impacts per eligible applicant were inflated by different participation rates in calculating the impacts per participant. Because of these differing participation rates across subgroups, impacts per participant provide the most accurate picture of relative program impacts across the different groups.

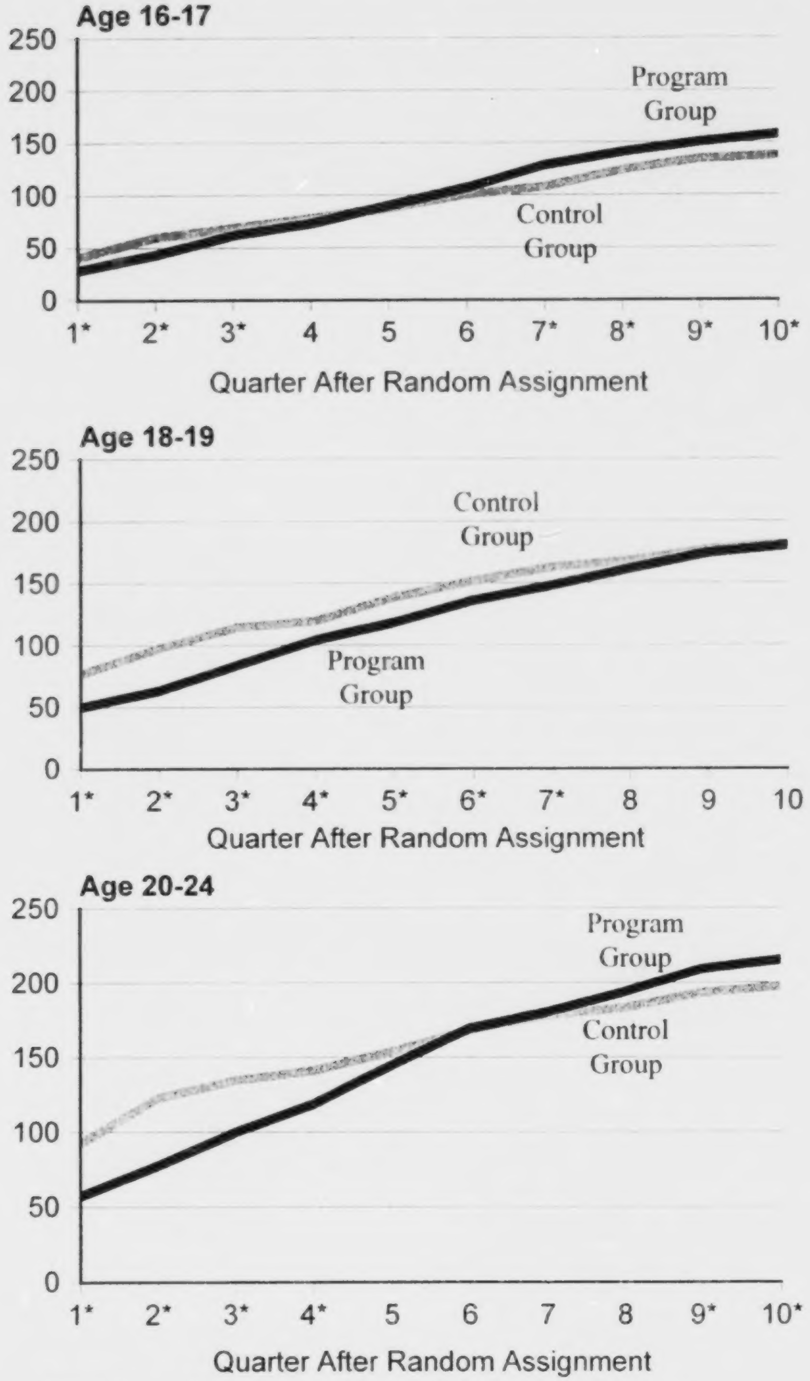
1. Impacts by Age

As one would expect, employment rates and average earnings of older applicants were higher than those of younger applicants during each quarter during the 30-month follow-up period (Figure VI.5 and Tables D.3 to D.5). Among the control group, employment and earnings increased over time for all age groups but increased proportionately more for those 16 and 17 years old. For example, average earnings per week of 16- and 17-year-old control group members more than tripled, from $41 in quarter 1 to $138 in quarter 10, whereas those of control group members 20 and older approximately doubled during the same period (from $92 to $197).

The short-term impacts on employment and earnings were largest for 16- and 17-year-olds (Figures VI.5 and VI.6, and Tables D.3 to D.5). Impacts on their earnings per week became positive in quarter 5 and were statistically significant by quarter 7. In quarter 10, the impact on earnings per week per participant was $26--a 19 percent gain. Impacts per participant on the employment rate and the percentage of weeks employed in quarter 10 were about 5 percentage points each and are

FIGURE VI.5

AVERAGE EARNINGS PER WEEK, BY QUARTER AND AGE



Age 16-17

Age 18-19

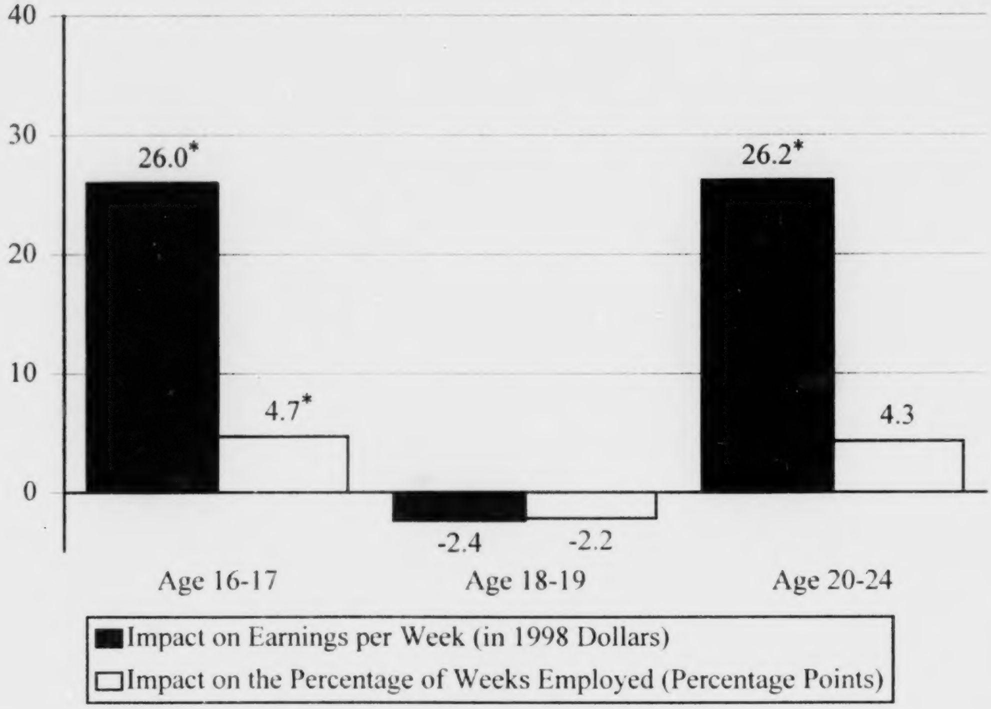
Age 20-24

Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

FIGURE VI.6

IMPACTS PER PARTICIPANT ON EARNINGS PER WEEK AND THE PERCENTAGE OF WEEKS EMPLOYED IN QUARTER 10, BY AGE



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Estimated impact per participant is statistically significant at the 5 percent level.

statistically significant. Impacts on earnings per week over the *entire* 30-month period were actually positive (but not statistically significant) for those 16 and 17.[10]

The program also produced modest earnings gains by the beginning of the third year after random assignment for applicants who were 20 or older. Earnings impacts were positive beginning in quarter 6, although they were not statistically significant until quarter 9. The impact on quarter 10 earnings per week was $26 per program participant.[11] We estimate that participants 20 or older earned an average of about 14 percent more per week in quarter 10 than they would have if they had not participated in Job Corps. The impact estimates on the time spent employed were positive for this group but were small and not statistically significant. The employment and earnings impacts were not statistically significant for 18- and 19-year-old participants.

The findings by age are similar across subgroups defined by other student characteristics. For example, the same pattern of impacts across age groups holds for males and females and for those assigned to the residential and nonresidential components.

Importantly, the duration of participation in Job Corps increased with age. It was 7.4 months for those 16 and 17, 8 months for those 18 and 19, and 9 months for those 20 to 24. Yet the average number of months from random assignment until participants enrolled in Job Corps did not differ by age. Thus, the postprogram period was typically shorter for the older participants. We may be less likely to observe program effects over 30 months for the older participants, because of their longer period in Job Corps. The longer observation period afforded by the 48-month interview will be critical to assessing fully these differences in impacts by age.

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[10] Estimated impacts were larger for those 16 years old than for those 17 years old.

[11] The quarter 10 earnings impact per participant was similar for those 16 and 17 and those 20 or older, although the impact per eligible applicant was larger for the younger group. This is because the Job Corps participation rate was higher for the younger group. Thus, we inflated the impact per eligible applicant more for the older group to calculate the impact per participant.

The age findings were not affected by age differences in school enrollment rates by research status. For example, about 20 percent of program and control group members in each age group were enrolled in an education program in quarter 10, and about 16 percent were enrolled in an education program in the last week of the 30-month follow-up period.

2. Impacts by Gender

Short-term impacts on employment and earnings were very similar for males and females (Figures VI.7 and VI.8 and Tables D.6 and D.7). Indeed, the timing of the overtaking points and the size of the impacts were similar. For example, the impact on quarter 10 earnings per week per participant was $17 for males (a 9 percent increase) and $19 for females (a 14 percent increase). Impacts on hours worked and hourly earnings were also very similar for males and females. The differences between the quarter 9 and 10 impact estimates by gender are not statistically significant. The gender findings are similar across most other subgroups.

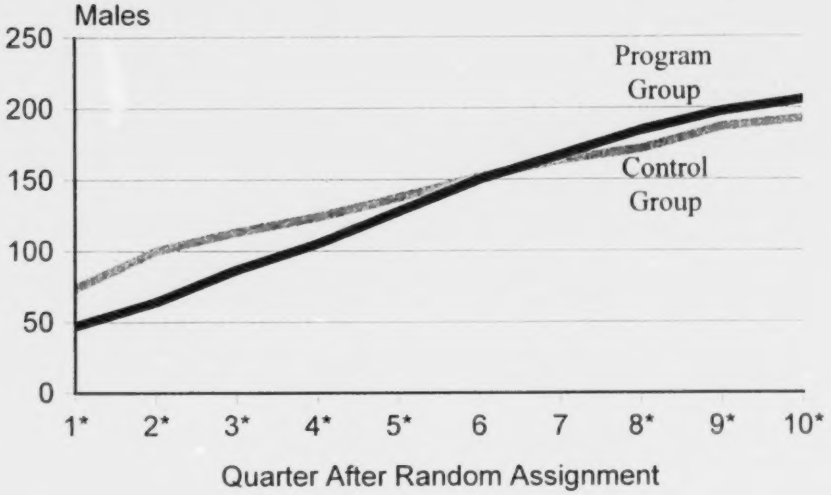
The finding that Job Corps improved short-term employment-related outcomes for both males and females is of policy importance because of differences in the characteristics and programmatic needs of these groups. Female students tend to be older, to have completed high school, to have children, and to be nonresidential students. Thus, the program effectively serves these two groups of students with different training needs and barriers to successful employment. Important differences are evident, however, in the findings for males and females who were designated as residential or nonresidential students, as we discuss next.

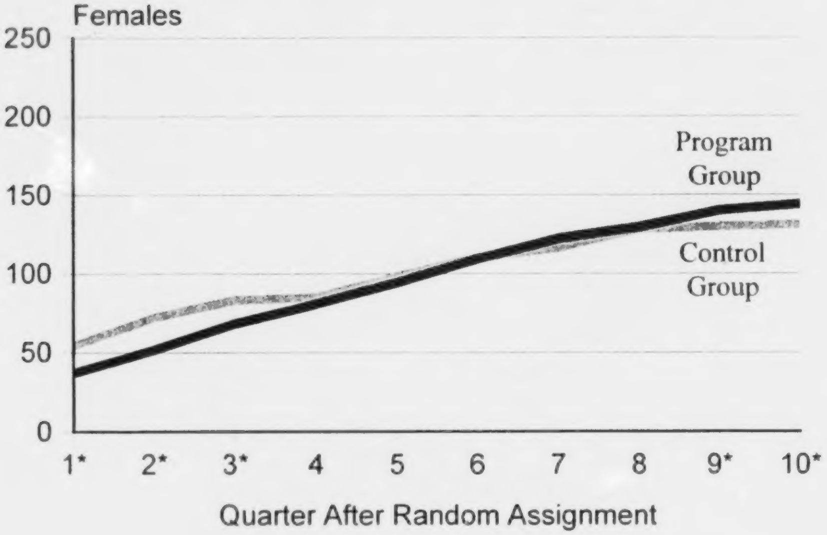
3. Impacts for Residential and Nonresidential Students

Most students reside at their center while attending Job Corps. Indeed, one eligibility criterion is that the student must live in a home or community environment so debilitating that the youth

FIGURE VI.7

AVERAGE EARNINGS PER WEEK, BY QUARTER AND GENDER



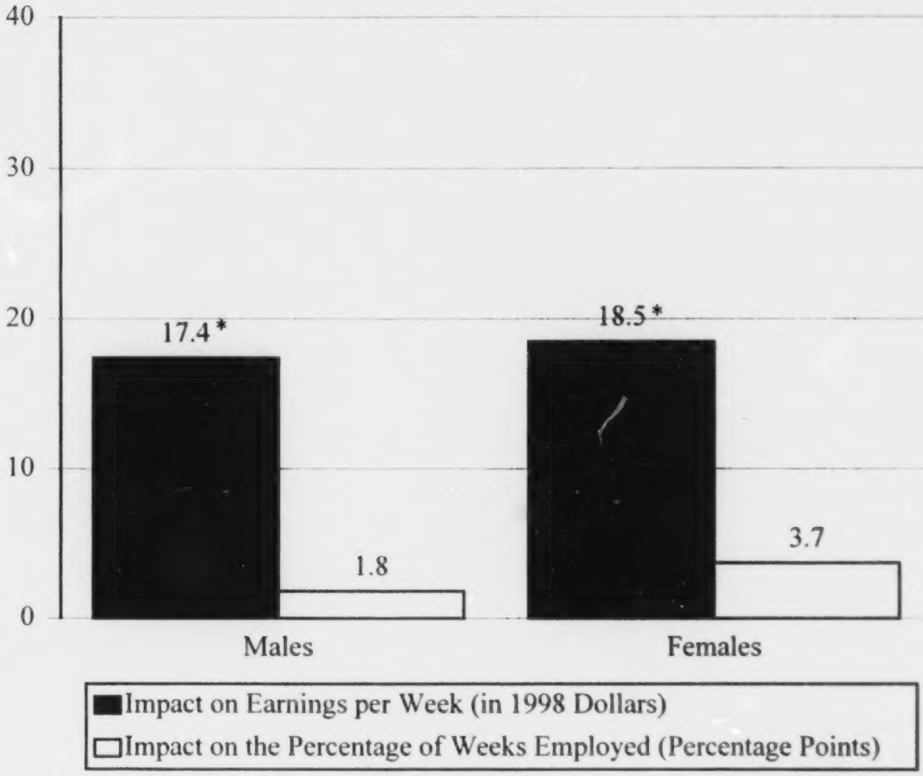


Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

FIGURE VI.8

IMPACTS PER PARTICIPANT ON EARNINGS PER WEEK AND THE PERCENTAGE OF WEEKS EMPLOYED IN QUARTER 10, BY GENDER



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Estimated impact per participant is statistically significant at the 5 percent level.

cannot benefit from education and job training while living at home. Yet up to 20 percent of Job Corps slots can be used to serve nonresidential students--those who live at home while attending Job Corps. About 12 percent of students were nonresidential during the period of the study. Nonresidential students must live within commuting distance of their center, and they must be judged able to benefit from Job Corps without leaving their community.

Impacts of the residential component were estimated by comparing the outcomes of program group members designated for a residential slot before random assignment with the outcomes of control group members designated for a residential slot. Similarly, the impacts of the nonresidential component were estimated by comparing the experiences of program and control group members designated for nonresidential slots. Accordingly, the analysis examines (1) the short-term effectiveness of the residential program for youths who are typically assigned to residential slots, and (2) the short-term effectiveness of the nonresidential program for youths who are typically assigned to nonresidential slots. Differences in the students assigned to each component require that we interpret the findings cautiously: they do *not* tell us about the effectiveness of each component for the average Job Corps student or how students assigned to one component would have fared in the other.

Because nonresidents are predominantly females with children, we present separate impact estimates for (1) males, (2) females without children, and (3) females with children. Samples for some of these subgroups are small (for example, the control group contains about 200 female residential designees with children and about 200 youths in each nonresidential group). Accordingly, some of the subgroup impact estimates are imprecise. Still, the differences in students served in each component made it important to present separate estimates for these groups. We believe the pattern of findings reflects real differences in short-term outcomes across the groups.

a. Impacts for Residential Students

For students assigned to the residential program, Job Corps was effective in the short term and similarly effective for broad groups of students (Figures VI.9 and VI.10 and Tables D.8 to D.10). The estimated impacts on employment and earnings late in the follow-up period were very similar for male residents, female residents with children, and female residents without children. The impact per participant on quarter 10 earnings per week was $19 for males and for females without children, and it was $13 for females with children. These impacts translate into percentage increases in earnings ranging from 10 to 15 percent. These results suggest that disadvantaged youths who are suitable for the residential component can benefit from being removed from their home environments and given intensive services in a residential setting for a significant period of time.

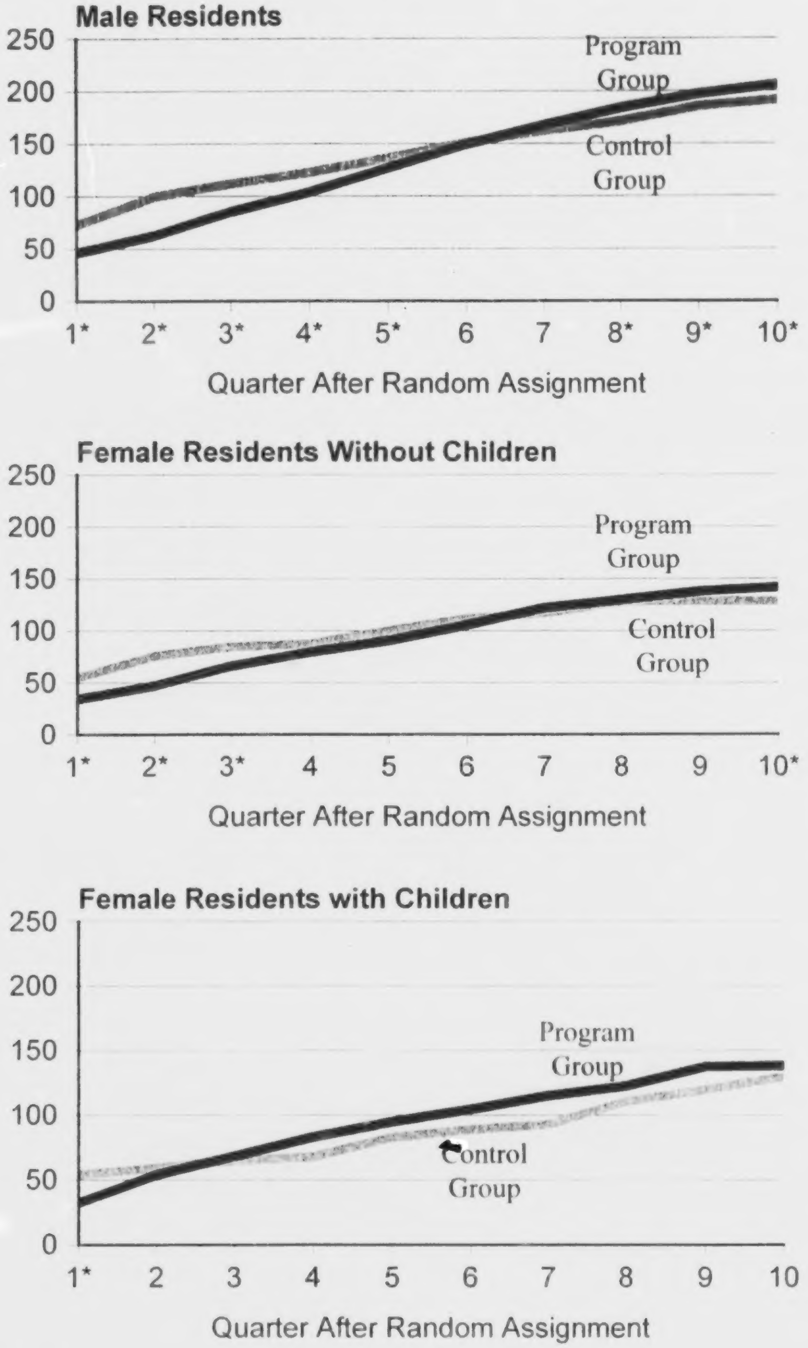
b. Impacts for Nonresidential Students

The nonresidential component substantially improved the short-term employment-related outcomes of females with children, but it did not improve these outcomes for males or for females without children (Figures VI.11 and VI.12 and Tables D.11 to D.13). For females with children, participation in the nonresidential component improved earnings per week in quarter 10 by more than $45--an increase of 37.5 percent. The estimated impacts on earnings for males and females without children were small and not statistically significant.

The finding that estimated program impacts were large for females with children is important because, as discussed, their barriers to successful employment are particularly acute. For example, these women (who represent about 30 percent of all female students and about half of all nonresidential students) tend to be highly dependent on public assistance, and many lack adequate support systems. Thus, the fact that Job Corps can increase employment and earnings for this group is an important policy finding.

FIGURE VI.9

AVERAGE EARNINGS PER WEEK FOR RESIDENTIAL DESIGNEES, BY QUARTER AND GENDER

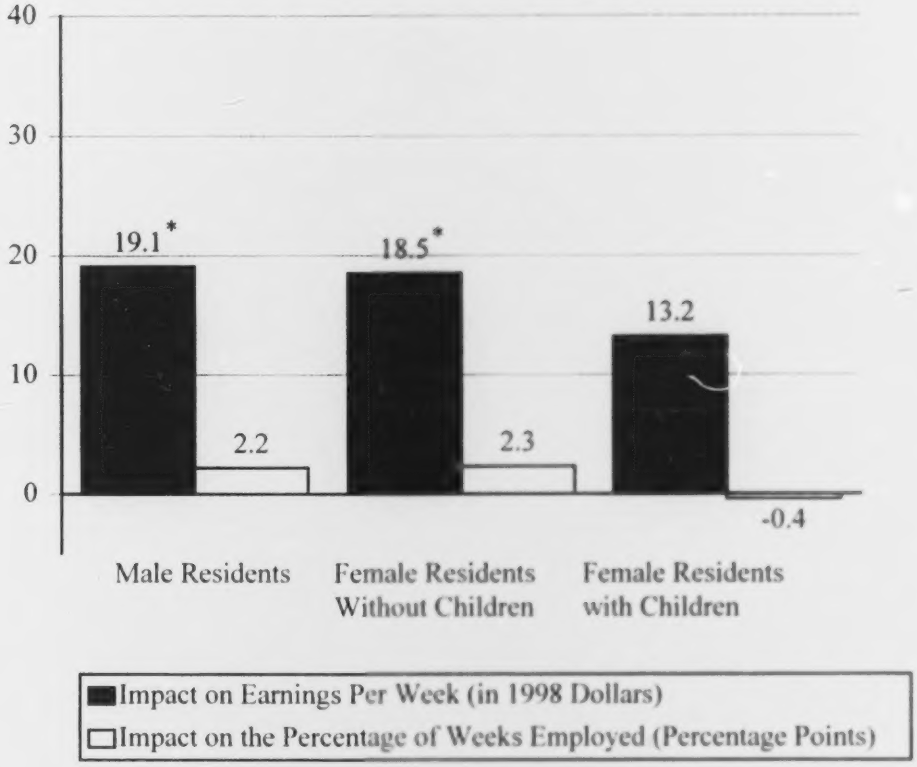


Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

FIGURE VI.10

IMPACTS PER PARTICIPANT ON EARNINGS PER WEEK AND THE PERCENTAGE OF WEEKS EMPLOYED IN QUARTER 10 FOR RESIDENTIAL DESIGNEES, BY GENDER



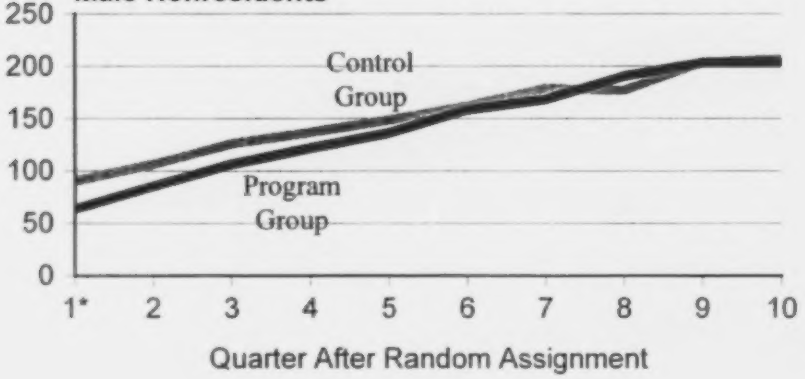
Source: Baseline, 12-month, and 30-month follow-up interviews.

*Estimated impact per participant is statistically significant at the 5 percent level.

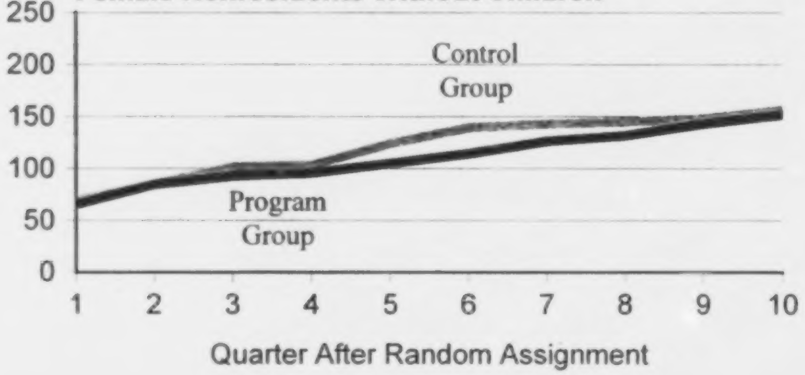
FIGURE VI.11

AVERAGE EARNINGS PER WEEK FOR NONRESIDENTIAL DESIGNEES, BY QUARTER AND GENDER

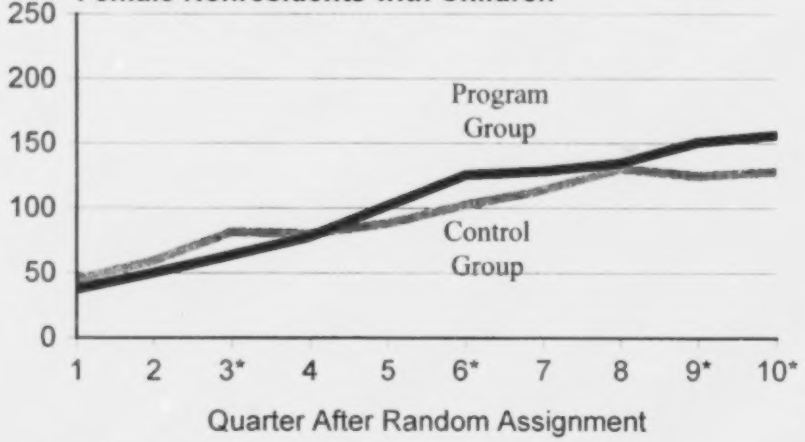
Male Nonresidents



Female Nonresidents Without Children



Female Nonresidents with Children

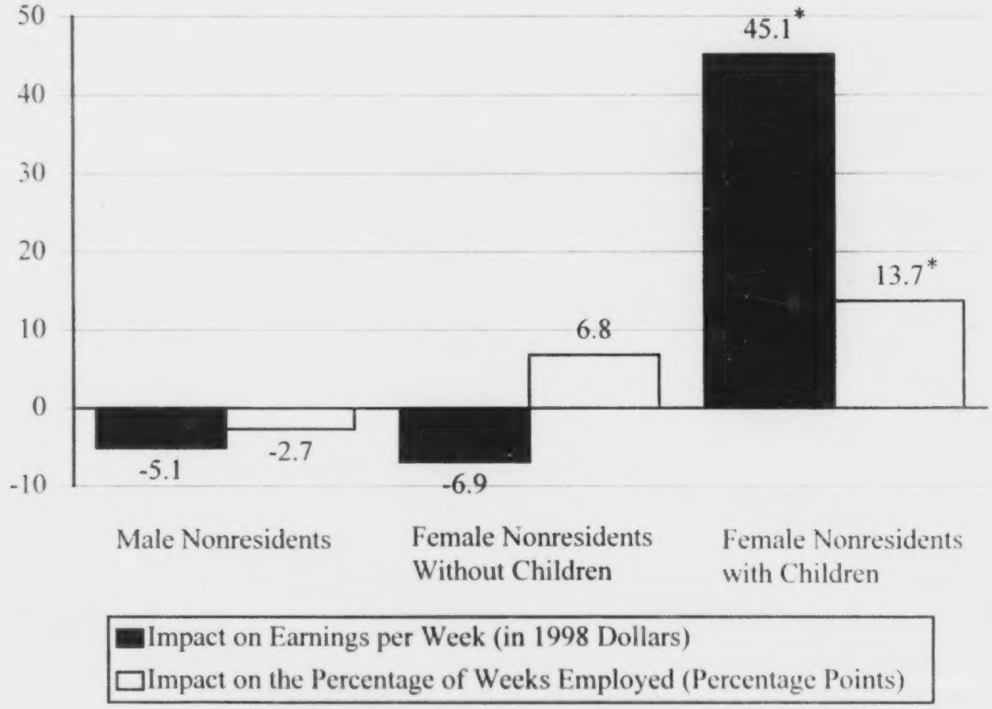


Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

FIGURE VI.12

IMPACTS PER PARTICIPANT ON EARNINGS PER WEEK AND THE PERCENTAGE OF WEEKS EMPLOYED IN QUARTER 10 FOR NONRESIDENTIAL DESIGNEES, BY GENDER



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Estimated impact per participant is statistically significant at the 5 percent level.

c. Interpretation of Findings

The impact findings by residential status should be interpreted with caution. As discussed, our estimates provide information about the effectiveness of each component for the populations it serves. The estimates cannot be used to assess how a youth in one component would fare in the other one, or how effective each component would be for the average Job Corps student. This is because the characteristics of residents differ from those of nonresidents in ways that can affect outcomes.

For example, we find positive impacts for males in the residential component but not for males in the nonresidential component. It is tempting, then, to conclude that male nonresidents would have better outcomes if they were instead assigned to the residential component. However, our results *cannot* be used to support this conjecture, because there are known differences in the characteristics of male residents and male nonresidents. While it is possible to control for some of these differences (such as age, education level, and the presence of children), others (such as family commitments and support, and motivation) are probably correlated with outcomes and cannot be measured. These unmeasured differences could lead to erroneous conclusions about how nonresidential males would fare in the residential component (and vice versa).

Instead, our results shed light on how well the residential program serves youths who are suitable for the residential component, and how well the nonresidential program serves youths who are suitable for the nonresidential component.

4. Impacts for Other Key Subgroups

Estimated impacts on short-term postprogram employment and earnings differed for some other key subgroups defined by youth characteristics. Impacts were larger for those who lacked a high school credential at application than for those with a high school credential, even when controlling for age. Whites and African Americans experienced larger gains than other racial and ethnic groups. Although some evidence suggests that earnings impacts were smaller for those with serious arrest charges, impacts were similar at quarter 10 for those who had and had not been arrested. Impacts were the same for those who applied before and after the new Job Corps ZT policies took effect.

a. Educational Attainment

Impacts on employment and earnings were larger for those who lacked a high school credential (GED or high school diploma) than for those with a high school credential at random assignment (Figure VI.13 and Table D.14). Across all ages, participants without a high school credential earned an average of about \$22 more per week in quarter 10 than they would have if they had not enrolled in Job Corps, and their percentage of weeks worked in quarter 10 was about four percentage points higher. These impact estimates are statistically significant at the 1 percent level. For students who had no high school credential at baseline, the impacts were smaller and not statistically significant.[12]

The estimates for students without a high school credential are heavily influenced by the 16- and 17-year-old students, nearly all of whom had no credential. In contrast, about half the students 20 or older had no credential. To disentangle the effects of age and educational attainment, we also estimated impacts by high school credential status for the older age groups separately (Figure VI.13).

Within the older group, the impacts for those who lacked a high school credential were larger than the impacts for those who had one. For example, the impact on earnings per week in quarter 10 was \$36 for 20- to 24-year-old students without a credential, which translates to a 22 percent

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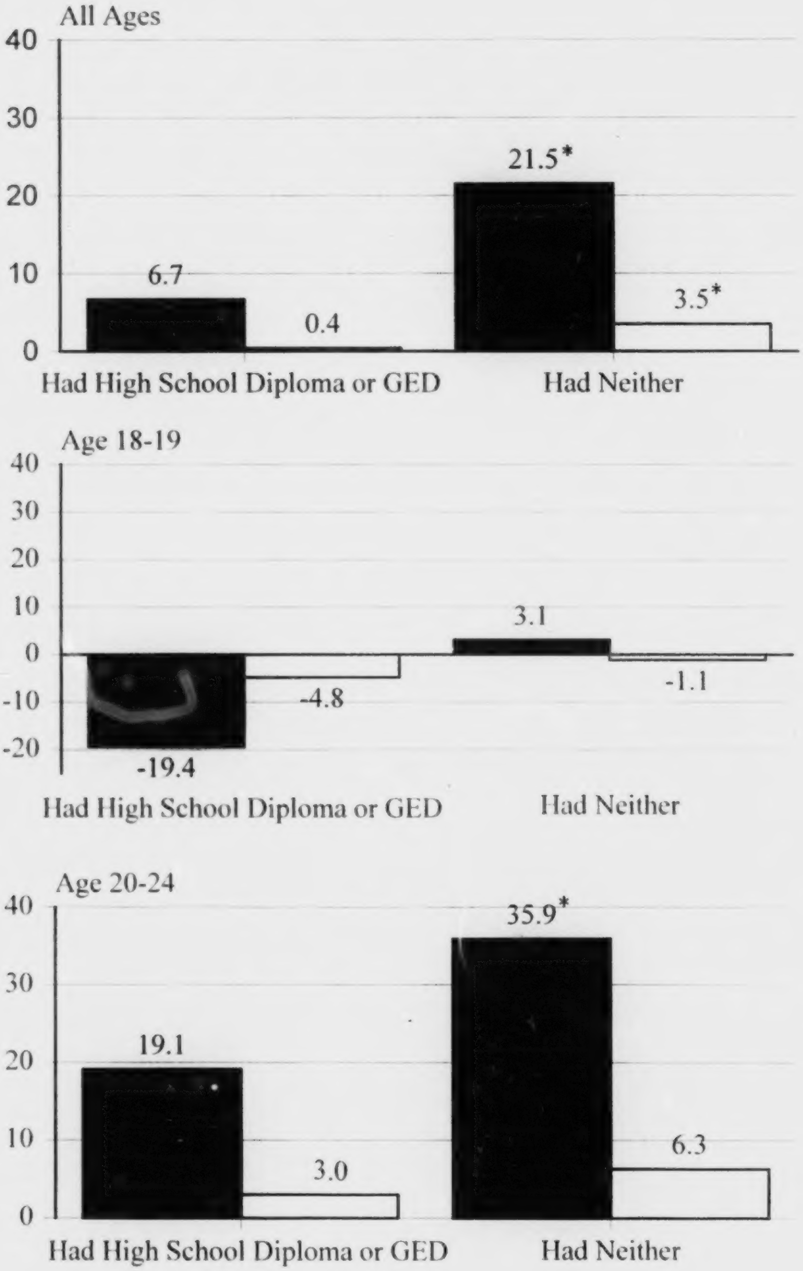
[12] We also estimated separate impacts for those with a GED and those with a high school diploma at random assignment. The impacts for those with a GED were more similar to the impacts for those who lacked a high school credential than to the impacts for those with a high school diploma. However, impacts for those with a GED are not statistically significant. Furthermore, sample sizes are small for the GED group (see Table A.1). Thus, we are not confident that the GED results represent true effects; hence, we do not highlight them.

FIGURE VI.13

IMPACTS PER PARTICIPANT ON EARNINGS PER WEEK AND THE PERCENTAGE OF WEEKS EMPLOYED IN QUARTER 10, BY HIGH SCHOOL CREDENTIAL STATUS AND AGE



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Estimated impact per participant is statistically significant at the 5 percent level.

increase in earnings due to program participation. The impacts for 20- to 24-year-olds with a GED or high school diploma were positive, but smaller. The impacts for the 18- and 19-year-olds are statistically insignificant both for those with and for those without a credential, although the estimates were larger for those without one.

Students with a high school credential typically participated in Job Corps for longer periods than those without one. The average duration of participation was 7.7 months for program group enrollees without a credential, compared to 9.1 months for those with one. Thus, the postprogram period was about 1.4 months longer on average for those without a credential. It will be important to determine whether this pattern of findings holds over the longer 48-month follow-up period.

b. Arrest Experience

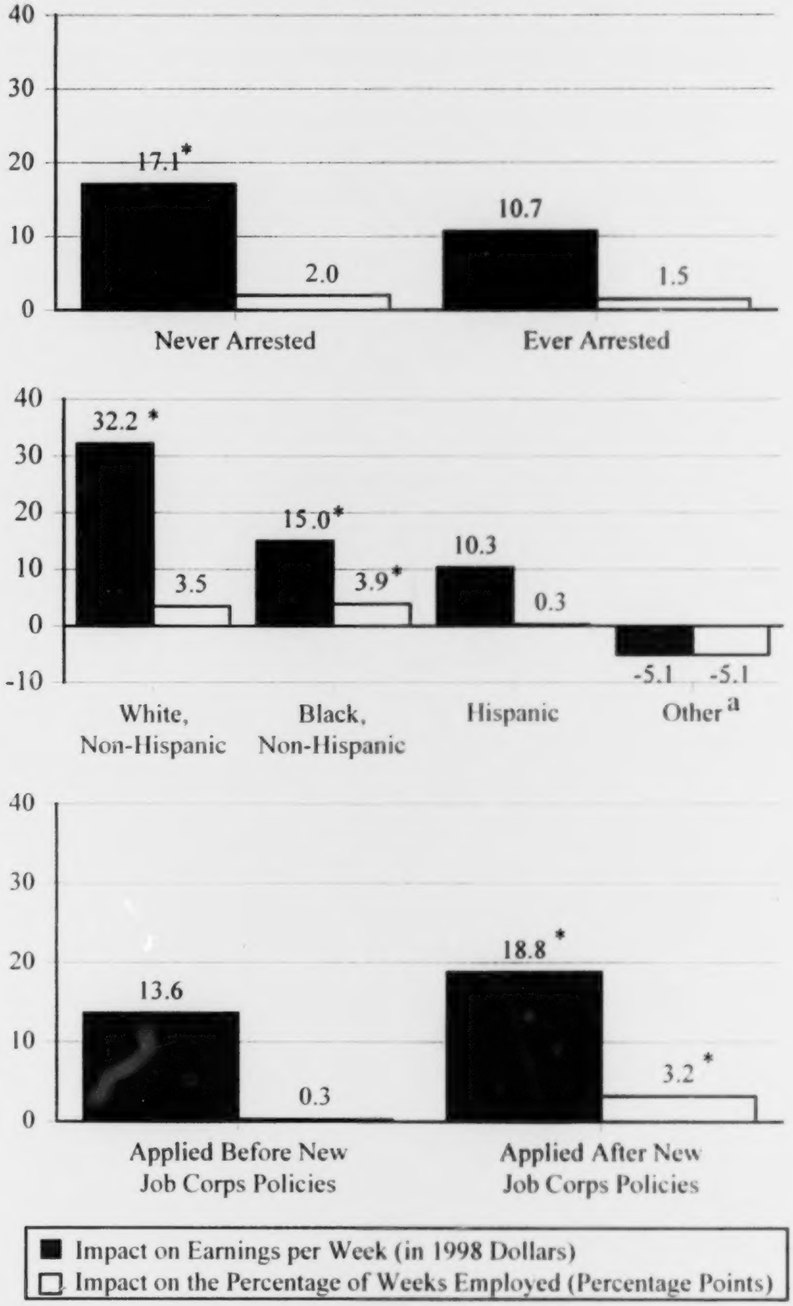
To be eligible for Job Corps, applicants must be free of behavioral problems that would prevent them from adjusting to Job Corps standards of conduct or that would pose risks to other students. While prior involvement with the criminal justice system does not disqualify an applicant, youths with such involvement are carefully screened by the OA agency and often by the regional office. An important policy question is whether Job Corps can effectively serve those who have had problems with the law.

Job Corps impacts on short-term employment-related outcomes were slightly larger for those who were never arrested than for those who were ever arrested prior to random assignment (Figure VI.14 and Table D.14). The impact estimate on earnings per week in quarter 10 was $17 for those without arrest charges, as compared to $11 for those with arrest charges.

We also estimated separate impacts for those who were ever arrested for serious crimes (aggravated assault, murder, robbery, and burglary) and those who were arrested for nonserious

FIGURE VI.14

IMPACTS PER PARTICIPANT ON EARNINGS PER WEEK AND THE PERCENTAGE OF WEEKS EMPLOYED IN QUARTER 10, BY ARREST HISTORY, RACE AND ETHNICITY, AND APPLICATION DATE



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Estimated impact per participant is statistically significant at the 5 percent level.

[a]This group includes American Indians, Alaskan Natives, Asians, and Pacific Islanders.

crimes (Table D.14). Our findings indicate that the program had no effect on those with serious arrests, whereas program effects on those with nonserious arrests and no arrests were similar.[13] These results suggest that those who have had serious encounters with the law do not benefit significantly from participation in Job Corps. However, the group with serious arrests is very small (less than 5 percent of the sample), and the mean earnings for control group members in this arrest group was improbably high. Thus, conclusions for this group should be treated with caution.

c. Race and Ethnicity

Job Corps was more effective in the short term for whites and African Americans than for Hispanics and other racial and ethnic groups (which includes American Indians, Alaskan Natives, Asians, and Pacific Islanders). As shown in Figure VI.14 and Table D.14, the estimated impact on quarter 10 earnings per week was $32 for white students and $15 for African American students, and both are statistically significant. The percentage increase in earnings was 16 percent for whites and 10 percent for African Americans. The impact estimates were smaller and not statistically significant for Hispanics and the other race and ethnicity group. We find the same general pattern of results across age and gender groups (although there is some evidence that short-term impacts were positive for 16- and 17-year-old Hispanics).

As with several other subgroup findings, whites and African Americans had shorter average periods of participation in the program than the other groups. Whites and African Americans participated in Job Corps for an average of about 7.6 months each, as compared to 9.4 months for

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[13] The difference between the employment-related impact estimates across the three groups are statistically significant.

Hispanics and 8.5 months for those in other racial and ethnic groups.[14] Thus, it may take longer until positive impacts are observed for Hispanics, American Indians, Alaskan Natives, Asians, and Pacific Islanders.

d. Job Corps Application Date and the New Job Corps Policies

Job Corps instituted strict ZT policies for violence and drugs in March 1995 in response to congressional concerns about safety on center. Students suspected of specific acts of violence or of possession or sale of illegal drugs are now removed from the center immediately and, if fact-finding establishes that they committed the alleged offenses, terminated from the program. These new policies took effect early in the sample intake period for the study. To assess the extent to which these new policies might have affected the impact estimates, we calculated impacts separately for those who applied before and after March 1, 1995.

Short-term employment and earnings impacts were similar for the cohorts enrolled before and after the ZT policies took effect (Figure VI.14 and Table D.14). The impact estimate on earnings per week in quarter 10 was about $19 for the post-ZT group, compared to $14 for the pre-ZT group, and the difference in the impact estimates is not statistically significant. Furthermore, the difference in the earnings impacts were due to slightly lower control group mean earnings for the post-ZT group and *not* to higher mean program group earnings for the post-ZT group. In addition, Job Corps enrollment rates among the program group, the distribution of the duration of stay in the program, and impacts on education-related outcomes were similar for the two groups. Thus, it does not appear that the new policies had much effect on short-term earnings impacts.

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[14] Many Hispanics and Asians students live in Region 9, and the average duration of stay for students who attend centers in Region 9 is longer, on average, than for students who attend centers in any other region.

The impact estimates for the pre-ZT group should be interpreted with caution, because program group members in the pre-ZT group who were in Job Corps after March 1, 1995, became subject to the new rules. About 91 percent of program group enrollees in the pre-ZT group participated in Job Corps after March 1, 1995, and the pre-ZT group spent an average of 78 percent of their total time in Job Corps after the ZT policies took effect. Thus, impact estimates pertaining to the pre-ZT period are contaminated. Furthermore, program experiences could differ by season, and because of the limited sample intake period, the data are not available to compare impacts for those in pre-ZT and post-ZT groups who were recruited during the same time of year. Thus, while we find no effect of the new policies, the evidence is fairly weak.

VII. WELFARE, CRIME, ILLEGAL DRUG USE, AND OTHER OUTCOMES

This chapter analyzes a range of other outcomes that Job Corps may influence. These analyses, in addition to those of education and training, earnings, and employment, are designed to help assess the extent to which Job Corps achieves its goal of helping students become more responsible and productive.

The chapter addresses six specific questions:

1. Does participation in Job Corps reduce dependence on welfare and other forms of public income support?
2. Does Job Corps reduce involvement with the criminal justice system or the severity of crimes that program participants commit?
3. Are participants less likely to use tobacco, alcohol, and illegal drugs?
4. Does Job Corps improve the overall health of participants?
5. Does Job Corps reduce the likelihood of bearing or fathering children while unmarried, or increase the likelihood of forming stable, long-term relationships?
6. Does Job Corps influence the types of areas that participants move to after they leave the program?

To address these questions, we present program impacts on a diverse set of outcomes, both for the full sample and for key student subgroups.

As with education outcomes, and in contrast to employment-related outcomes, we expected program impacts on many of these nonlabor market outcomes to be largest during the early part of the follow-up period and perhaps to diminish later on. For example, we expected that program impacts on welfare receipt, crime, and illegal drug use would be substantial during the period when program group members were enrolled in Job Corps, and would diminish over time as the youths left the program.

Two factors led to these expectations. First, while participants are in Job Corps, their activities are restricted, their behavior is monitored, and their material needs are met. Consequently, there is less need for public assistance and less opportunity to engage in activities that lead to arrests. Second, we hypothesized that sample members would be less likely to receive public assistance, to engage in criminal activities, and to use illegal drugs as they matured and as their household incomes increased. With this maturation, we anticipated reductions in the size of program impacts over time. Because of these factors, we anticipated that impacts on many of these nonlabor market outcomes during the brief 30-month follow-up period would be more representative of the full effects of the program than would the similarly short-term impacts on employment and earnings.

Job Corps participation reduced the receipt of public assistance benefits. Overall, program group members reported receiving about $300 less in benefits (across several public assistance programs) than control group members, and this impact is statistically significant. Contrary to our expectations, however, impacts on public assistance receipt were not concentrated in the early part of the follow-up period but persisted throughout the period.

The estimated program impacts on the receipt of individual types of assistance were small and in many cases not statistically significant. The average number of months receiving Aid to Families with Dependent Children (AFDC) or Temporary Assistance for Needy Families (TANF) benefits differed by just 0.2 months (3.5 months for the program group and 3.7 for the control group). Control group members received food stamps for slightly more months on average than program group members (4.8 months, compared to 4.3 months). Impacts on the receipt of general assistance

(GA), Social Security Income (SSI), and WIC benefits and on the likelihood of being covered by public health insurance were small.

Job Corps participation significantly reduced arrest rates. About 27.7 percent of control group members were arrested during the 30-month follow-up period, compared to 23.3 percent of program group members (a statistically significant impact of -4.4 percentage points per eligible applicant). The impact per participant was -6.1 percentage points, which translates to a 22 percent reduction in the arrest rate due to program participation. Reductions in the arrest rates were largest during the first year after random assignment (when most program enrollees were in Job Corps). Interestingly, however, arrest reductions were also statistically significant during the later months of the follow-up period, after most youths had left Job Corps.

Program group members were less likely to have arrest charges for all categories of crimes. However, reductions were slightly larger for less serious crimes (such as disorderly conduct and trespassing).

Job Corps participation also reduced convictions and incarcerations resulting from a conviction. Nearly 21 percent of control group members were ever convicted during the follow-up period, compared to 17 percent of program group members. Similarly, Job Corps participation reduced the percentage incarcerated for convictions by 3 percentage points (from 14 percent to 11 percent).

Although the *level* of criminal activity differed substantially across youth subgroups, the *impacts* on crime outcomes were very similar (in particular, by gender and age). We find some differences, however, in crime impacts by residential status. Job Corps reduced arrest rates for male residents, female residents, and female nonresidents. However, impacts were smaller for male nonresidents.

Job Corps had little effect on the self-reported use of tobacco, alcohol, and illegal drugs, for the full sample and for key subgroups. It also had little effect on time spent in drug treatment. Job Corps, however, significantly reduced the percentage of youths who rated their health as "poor" or "fair" at the time of the 12-month and 30-month interviews. At each interview, about 18 percent of the control group and 15 percent of the program group said their health was "poor" or "fair."

Finally, the program had no effect on family formation and mobility, either for the full sample or for key youth subgroups. About 25 percent of those in both the program and control groups had a child during the follow-up period (32 percent of females and 19 percent of males). Similarly, about one-quarter of each group was living with a partner at the 30-month interview. About a fourth of parents were living with all their children, and about 80 percent of males with children provided support for noncustodial children. The distance between the zip codes of residence at application to Job Corps and at the 30-month interview was less than 10 miles for about three-quarters of both research groups. Furthermore, the average characteristics of the counties of residence at 30 months were similar for program and control group members.

A. RECEIPT OF PUBLIC ASSISTANCE AND OTHER SOURCES OF INCOME

Many sample members were dependent on public assistance before they applied to Job Corps. Nearly 60 percent of eligible applicants received some form of public income assistance in the year before random assignment (51 percent of males, 67 percent of females, and 88 percent of females with children; Schochet 1998a). Thus, the extent to which Job Corps reduces participants' reliance on public assistance benefits, in both the short term and the longer term, is an important question.

Job Corps participants may experience a reduction in welfare receipt while they are enrolled in the program, because the program provides shelter (except to nonresidential students), food, and a small stipend. After they leave Job Corps, students may receive less public income support because of higher earnings. The program might also affect other sources of income, such as child support payments and income from friends.

In the following sections, we present impacts on the receipt of public assistance benefits and other sources of income for the full sample and for key youth subgroups.

1. Full Sample Results

The analysis relies on self-reports by sample members about assistance that they or their spouse or children who lived with them received from four groups of programs: (1) the federal Aid to Families with Dependent Children program (AFDC), which was replaced in 1996 with the program to provide Temporary Assistance for Needy Families with children (TANF); (2) the federal Food Stamp Program; (3) general assistance (GA) programs, which are locally funded efforts to provide income support to people who have no children and consequently do not qualify for AFDC/TANF; and (4) other federal programs that provide income support to people who are disabled, including the Supplemental Security Income (SSI) and Social Security Retirement, Disability, or Survivor benefit (SSA) programs. In addition, respondents were asked to report on receipt of a variety of in-kind benefits (public health assistance, public housing, and WIC), as well as Unemployment Insurance (UI), child support, and support from family and friends.

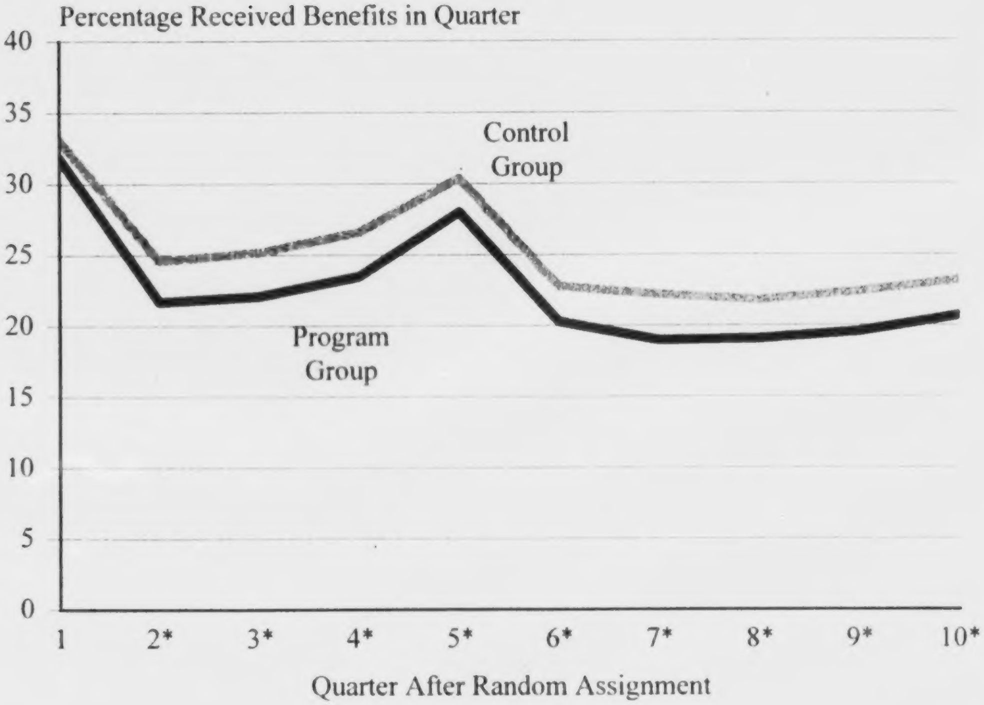
In the first subsection below, we present data on total receipt of AFDC/TANF, food stamps, GA, and SSI/SSA benefits. The second subsection presents additional details by type of benefit received, including the in-kind programs and other sources of income.

a. Impacts on Total Benefit Receipt

Figure VII.1 displays the percentage of program and control group members who received AFDC/TANF, food stamps, SSI/SSA, or GA during each quarter after random assignment. The

FIGURE VII.1

RECEIPT OF AFDC/TANF, FOOD STAMP, SSI/SSA, OR GA BENEFITS, BY QUARTER



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

differences between the program and control group percentages are estimated impacts per eligible applicant. The statistical significance of these impact estimates is indicated by asterisks along the horizontal axis. Table VII.1 displays more information on these impact estimates and presents impact findings on the number of months the youth received benefits and on the amount of benefits received. The estimates in the tables are displayed by quarter and for the following three post-random assignment periods: (1) months 1 to 12 (a period of intensive Job Corps participation for the program group), (2) months 13 to 24 (a period of still significant but less intensive Job Corps participation), and (3) months 25 to 30 (a postprogram period for most program group enrollees).

The *levels* of reported public assistance receipt were fairly constant from quarter to quarter, although there was a slight downward trend in average levels of receipt. For example, among the control group, the average percentage receiving public assistance in each quarter during the first year after random assignment was 27 percent, the percentage receiving it in each quarter of the second year was about 24 percent, and the percentage receiving it in the first two quarters of the third year was about 23 percent.[1]

The *impacts* on reported public assistance receipt were constant from quarter to quarter throughout the 30-month follow-up period. The rates of receipt were two to three percentage points lower among the program group than among the control group in each quarter after quarter 1, and the differences are statistically significant. In percentage terms, the impacts were between 15 and 20 percent per participant. As one would expect from this pattern, total months of receipt was about

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[1] The spikes in the benefit receipt rate in quarters 1 and 5 are likely due to a "seam problem." Quarter 1 is the last quarter covered by the baseline interview and the first quarter covered by the 12-month interview. Similarly, quarter 5 is the last quarter covered by the 12-month interview and the first quarter covered by the 30-month interview. Some respondents who reported at the baseline (12-month) interview that they recently received benefits may have forgotten that they were receiving these benefits during the 12-month (30-month) interview.

TABLE VII.1

IMPACTS ON THE RECEIPT OF AFDC/TANF, FOOD STAMP, SSI/SSA, OR GA BENEFITS

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Percentage Received Benefits, by Quarter After Random Assignment						
1	31.8	33.1	-1.3	30.0	-1.8	-5.8
2	21.7	24.6	-2.9***	19.7	-3.9***	-16.7
3	22.1	25.2	-3.1***	20.3	-4.3***	-17.4
4	23.5	26.6	-3.1***	21.8	-4.2***	-16.1
5	28.0	30.4	-2.3***	26.2	-3.2***	-10.9
6	20.3	22.8	-2.5***	18.5	-3.4***	-15.4
7	19.0	22.2	-3.2***	17.2	-4.4***	-20.2
8	19.1	21.8	-2.7***	17.2	-3.7***	-17.7
9	19.6	22.4	-2.8***	17.8	-3.8***	-17.5
10	20.7	23.2	-2.5***	19.0	-3.4***	-15.3
Percentage Received Benefits, by Period						
All months	46.3	49.1	-2.8***	44.3	-3.8***	-7.9
Months 1 to 12	36.1	38.6	-2.5***	34.1	-3.5***	-9.2
Months 13 to 24	32.8	36.0	-3.2***	30.7	-4.4***	-12.5
Months 25 to 30	22.1	24.7	-2.6***	20.3	-3.6***	-15.1
Month 30	19.6	21.8	-2.2***	18.0	-3.0***	-14.1
Average Number of Months Received Benefits, by Period						
All months	6.2	7.0	-0.8***	5.7	-1.1***	-16.0
Months 1 to 12	2.7	3.1	-0.3***	2.5	-0.5***	-16.0
Months 13 to 24	2.4	2.7	-0.3***	2.2	-0.4***	-16.2
Months 25 to 30	1.1	1.3	-0.1***	1.0	-0.2***	-16.3
Average Amount of Benefits Received, by Period (in Dollars)						
All months	2,451.7	2,761.1	-309.5***	2,214.6	-424.5***	-16.1
Months 1 to 12	1,044.2	1,167.5	-123.3***	956.0	-169.2***	-15.0
Months 13 to 24	935.4	1,052.7	-117.3***	836.5	-160.9***	-16.1
Months 25 to 30	460.7	519.7	-59.0***	413.5	-80.9***	-16.4
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

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0.8 months lower on average for the program group (6.2 months, compared to 7.0 months for the control group), and average total benefits were about $310 lower (about $2,450 for the program group and $2,760 for the control group).

As described below, this $310 impact on total benefits was due to the sum of small impacts on the amount of AFDC/TANF, food stamp, SSI/SSA, and GA benefits received.

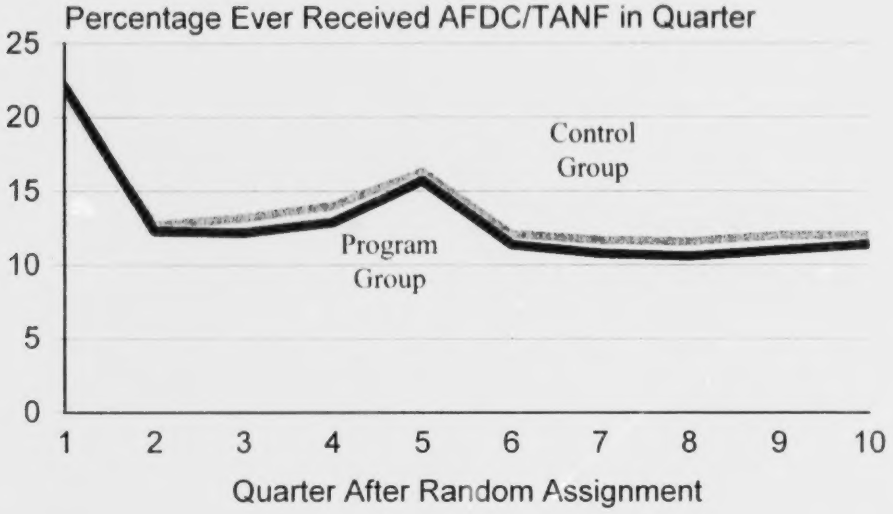
b. Impacts by Type of Benefit Receipt

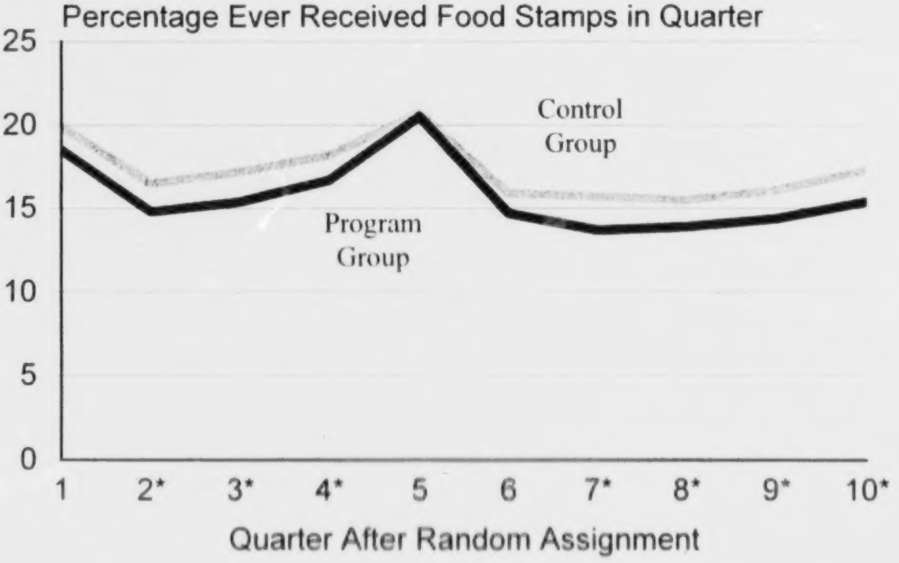
Job Corps participation had little effect on the receipt of benefits from programs providing income support to families with children (AFDC/TANF) during the follow-up period (Figure VII.2 and Table VII.2). About 30 percent of each research group reported ever receiving AFDC/TANF benefits during the follow-up period. The control group was slightly more likely to have received benefits in each quarter after quarter 1, although the estimated impacts are not statistically significant at the 5 percent level. The control group received an average of $66 more AFDC/TANF benefits than the program group over the 30-month period ($1,107, compared to $1,041).

Job Corps participation had a modest effect on the receipt of food stamp benefits (Figure VII.2 and Table VII.3). About 35 percent of control group members ever received food stamps during the 30 months, compared to 32 percent of program group members (an impact of 3 percentage points per eligible applicant). The estimated impacts are statistically significant for the full period and for most quarters. Job Corps participants received benefits for about two weeks (0.6 months) less on average than they would have if they had not enrolled in the program (a 13 percent reduction) and received an average of about $85 less in benefits (a 10 percent reduction). Surprisingly, the food stamp benefit receipt rates did not decline over time, and the impacts were similar during the period

FIGURE VII.2

RECEIPT OF AFDC/TANF AND FOOD STAMP BENEFITS, BY QUARTER





Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

TABLE VII.2

IMPACTS ON THE RECEIPT OF AFDC/TANF BENEFITS

Outcome Measure	Program Group	Control Group	Estimated Impact for Eligible Applicants[a]	Program Group Job Corps Participants	Estimated Impact for Participants[b]	Percentage Gain from Participation[c]
Percentage Received AFDC/ TANF Benefits, by Quarter After Random Assignment						
1	22.1	21.5	0.6	21.3	0.8	3.7
2	12.3	12.7	-0.4	11.4	-0.6	-4.8
3	12.2	13.2	-1.0	11.3	-1.3	-10.4
4	12.9	14.0	-1.1*	11.9	-1.5*	-11.2
5	15.7	16.3	-0.6	14.7	-0.8	-5.0
6	11.4	12.1	-0.7	10.5	-0.9	-8.3
7	10.8	11.7	-0.9	9.9	-1.2	-11.0
8	10.6	11.6	-1.0*	9.6	-1.4*	-13.0
9	11.0	12.0	-1.0*	10.2	-1.4*	-11.9
10	11.4	12.0	-0.6	10.7	-0.8	-7.1
Percentage Received AFDC/ TANF Benefits, by Period						
All months	30.2	30.7	-0.6	28.9	-0.8	-2.6
Months 1 to 12	24.0	24.4	-0.3	22.8	-0.5	-2.0
Months 13 to 24	18.4	19.8	-1.4*	17.2	-1.9*	-10.1
Months 25 to 30	12.3	13.2	-0.9	11.5	-1.3	-10.0
Month 30	10.9	11.3	-0.4	10.3	-0.6	-5.4
Average Number of Months Received AFDC/TANF Benefits, by Period						
All months	3.5	3.7	-0.2	3.3	-0.3	-8.4
Months 1 to 12	1.6	1.6	-0.1	1.5	-0.1	-7.7
Months 13 to 24	1.3	1.4	-0.1	1.2	-0.1	-9.0
Months 25 to 30	0.6	0.7	0.0	0.6	-0.1	-8.8
Average Amount of AFDC/ TANF Benefits Received, by Period (in Dollars)						
All months	1,041.2	1,107.2	-66.0	961.2	-90.6	-8.6
Months 1 to 12	455.2	483.5	-28.3	423.7	-38.8	-8.4
Months 13 to 24	390.4	413.4	-23.1	357.4	-31.6	-8.1
Months 25 to 30	191.8	202.9	-11.0	176.9	-15.1	-7.9
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE VII.3

IMPACTS ON THE RECEIPT OF FOOD STAMP BENEFITS

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Percentage Received Food Stamp Benefits, by Quarter After Random Assignment						
1	18.5	19.9	-1.4*	16.4	-2.0*	-10.8
2	14.8	16.5	-1.7**	12.7	-2.3**	-15.6
3	15.4	17.2	-1.7**	13.5	-2.4**	-15.0
4	16.7	18.2	-1.6**	14.9	-2.1**	-12.6
5	20.5	20.7	-0.2	18.7	-0.3	-1.5
6	14.7	15.9	-1.1*	13.2	-1.6*	-10.6
7	13.7	15.7	-2.0***	12.0	-2.7***	-18.4
8	13.9	15.5	-1.6**	12.4	-2.2**	-14.8
9	14.4	16.1	-1.7**	12.8	-2.3**	-15.0
10	15.4	17.3	-1.9***	13.9	-2.6***	-15.7
Percentage Received Food Stamps, by Period						
All months	32.3	35.5	-3.2***	29.9	-4.4***	-12.8
Months 1 to 12	22.5	25.2	-2.8***	20.2	-3.8***	-15.8
Months 13 to 24	24.6	26.0	-1.4*	22.5	-1.9*	-7.9
Months 25 to 30	16.3	18.3	-2.0***	14.7	-2.7***	-15.4
Month 30	14.4	16.0	-1.6**	12.9	-2.2**	-14.5
Average Number of Months Received Food Stamps, by Period						
All months	4.3	4.8	-0.4***	3.8	-0.6***	-13.3
Months 1 to 12	1.8	2.0	-0.2**	1.6	-0.3**	-13.9
Months 13 to 24	1.7	1.8	-0.1**	1.5	-0.2**	-11.8
Months 25 to 30	0.8	0.9	-0.1**	0.7	-0.1**	-15.2
Average Amount of Food Stamps Received, by Period (in Dollars)						
All months	871.2	932.9	-61.8*	763.6	-84.7*	-10.0
Months 1 to 12	361.2	385.0	-23.9	315.6	-32.7	-9.4
Months 13 to 24	337.8	360.2	-22.4	296.7	-30.7	-9.4
Months 25 to 30	168.0	181.5	-13.5	147.4	-18.5	-11.1
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

when many program group members were enrolled in the program and during the period when many had left the program.

Receipt of GA benefits was rare (Table VII.4). During the 30-month follow-up period, about 3 percent of each group received GA benefits, although slightly fewer program group members did so (2.6 percent of the program group and 3.1 percent of the control group). Impacts were small on the amount of GA benefits received.

Receipt of SSI/SSA benefits was more common than receipt of GA benefits, but it was still uncommon (Table VII.4). However, impacts on the SSI/SSA measures were larger. For example, 9.2 percent of the control group and 7.6 percent of the program group reported receiving SSI/SSA benefits, a statistically significant reduction of 1.7 percentage points per eligible applicant (2.3 percentage points per participant). Reductions in the number of months of receipt (0.5 months) and total benefits received ($234) translate to 33 percent reductions due to program participation.

We find few differences in the receipt of other in-kind assistance (Table VII.5). About one-third of program and control group members were covered by a public health insurance program (and about 30 percent by Medicaid) at each interview point.[2,3] About 40 percent of the females in each

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[2] Those receiving AFDC/TANF were eligible for Medicaid. Thus, we assumed that those receiving AFDC/TANF benefits at the interview dates were covered by Medicaid even if they reported that they were not covered. The impact results are very similar if we do not make this assumption (in which case about 26 percent rather than 30 percent of both groups were covered by Medicaid).

[3] Among those covered by health insurance at 12 months, a slightly lower proportion of program than control group members reported being covered by Medicaid and a slightly higher proportion reported being covered by another public assistance program. We may observe this pattern because some program group enrollees may have reported that they were covered by health insurance through Job Corps. We do not observe this pattern at 30 months because nearly all program group participants were no longer in Job Corps at this point.

TABLE VII.4

IMPACTS ON THE RECEIPT OF GA AND SSI/SSA BENEFITS

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Percentage Received GA Benefits						
All months	2.6	3.1	-0.5	2.4	-0.7	-21.7
Months 1 to 12	1.5	1.6	-0.2	1.4	-0.2	-15.4
Months 13 to 24	1.7	2.0	-0.3	1.7	-0.4	-19.2
Months 25 to 30	1.0	1.1	-0.1	0.9	-0.1	-12.6
Average Number of Months Ever Received GA	0.2	0.3	0.0	0.2	0.0	-14.5
Average Amount of GA Benefits Ever Received (in Dollars)	55.3	64.3	-8.9	54.6	-12.2	-18.3
Percentage Received SSI/SSA Benefits						
All months	7.6	9.2	-1.7***	7.2	-2.3***	-23.9
Months 1 to 12	5.1	6.7	-1.6***	4.9	-2.1***	-30.1
Months 13 to 24	6.6	8.1	-1.5***	6.2	-2.1***	-25.3
Months 25 to 30	3.7	4.9	-1.2***	3.3	-1.7***	-34.2
Average Number of Months Ever Received SSI/SSA Benefits	1.2	1.6	-0.4***	1.1	-0.5***	-32.0
Average Amount of SSI/SSA Benefits Ever Received (in Dollars)	512.7	683.4	-170.7***	471.5	-234.2***	-33.2
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE VII.5

IMPACTS ON PUBLIC HEALTH INSURANCE COVERAGE AND THE RECEIPT OF WIC AND PUBLIC HOUSING BENEFITS

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Type of Public Health Insurance Coverage at the 12-Month Interview						
Not Covered	64.9	64.5	0.4*[d]	65.8	0.6*[d]	0.9
Medicaid	29.9	31.2	-1.3	28.8	-1.8	-6.0
Another public health assistance program	5.3	4.4	0.9	5.5	1.3	30.2
Type of Public Health Insurance Coverage at the 30-Month Interview						
Not Covered	66.0	65.3	0.6**[d]	67.3	0.9**[d]	1.3
Medicaid	32.0	31.9	0.1	30.7	0.1	0.5
Another public health assistance program	2.0	2.8	-0.8	2.0	-1.0	-33.7
Percentage Received WIC Benefits (for Females Only)						
All months	40.1	39.8	0.2	39.1	0.3	0.8
Months 1 to 12	18.5	20.2	-1.7	17.0	-2.3	-12.0
Months 13 to 24	33.7	34.5	-0.8	32.6	-1.0	-3.1
Months 25 to 30	31.0	30.3	0.7	31.0	1.0	3.3
Average Number of Months Ever Received WIC Benefits (for Females Only)	6.3	6.5	-0.3	6.0	-0.4	-5.7
Percentage Lived in a Public Housing Project						
At 12 months	15.2	16.1	-0.9	14.3	-1.3	-8.1
At 30 months	15.0	15.9	-1.0	14.9	-1.3	-8.1
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] The significance levels pertain to statistical tests for difference in the distribution of the outcome measure for program and control group members.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

group received WIC benefits. About 15 percent of sample members lived in public housing at each interview point.

Finally, the receipt of other types of income was not affected by Job Corps participation (Table E.1). Control group members were slightly more likely than program group members to receive UI benefits, although only about 3 percent of both groups received these benefits. The negative impact estimates, however, are statistically significant, and they are consistent with the finding that control group members were employed more and held more jobs during the follow-up period. Impacts on income from child support payments, friends, and other sources were small and not statistically significant.

2. Subgroup Results

In our sample, young men, young women with no children at baseline, and young women with children at baseline were likely to have had very different experiences with public assistance programs. The young men were much less likely than the females to have had children at random assignment (11 percent, compared to 29 percent), to have lived with their children, and, as discussed later in this chapter, were much less likely to have had children during the follow-up period (19 percent, compared to 32 percent). Thus, we expected the male youths to be less reliant than the female youths on welfare in general and on AFDC/TANF benefits in particular. To be sure, some males may have reported receiving AFDC/TANF benefits if they lived with parents and younger siblings or if they formed their own households that contained children. However, we expected that food stamps, GA, or SSI/SSA benefits would constitute a large share of welfare receipt among male recipients, because males could have been eligible for these benefits whether or not they lived with children. On the other hand, almost one-third of young women with no children at baseline gave birth during the 30-month period and, hence, could have become eligible for AFDC/TANF (and WIC) benefits when their children were born (or shortly before). Thus, we might expect that these females would be more reliant on AFDC/TANF benefits. Finally, the young women who had children at the time they applied for Job Corps may have received AFDC/TANF while in Job Corps if they were nonresidential students, or their children may have received it while they were attending Job Corps if they were residential students. Thus, this group was expected to be particularly dependent on public assistance. Although the preceding section provided an overview of program impacts on receipt of public assistance, it necessarily obscures differences in the experiences of these groups with divergent needs and circumstances.

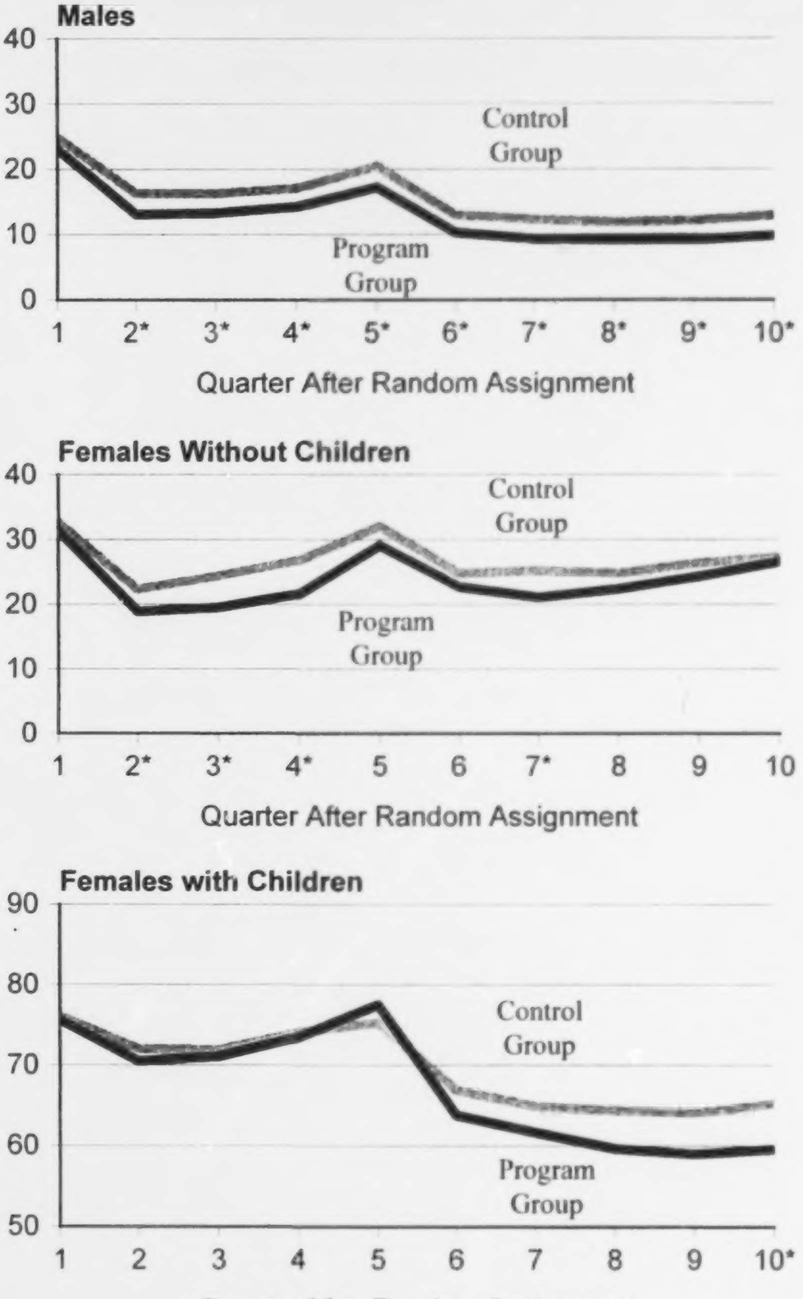
This section presents impacts on public assistance receipt for males and females with and without children at random assignment. Figure VII.3 displays the percentage of program group and control group members in each of these subgroups who ever received key types of public assistance during each quarter of the follow-up period. Figure VII.4 summarizes data on the composition of benefits received for each subgroup, and Tables E.2 to E.4 display more details on the impact findings. The section concludes with a brief discussion of impacts on key welfare outcomes for other youth subgroups.

a. Impacts for Males

The level of public assistance receipt among male control group members declined somewhat during the 30-month follow-up period. During the first year, about 19 percent of control group males received public assistance per quarter. During the second year, about 14 percent received benefits per quarter, and the figure was about 13 percent during the last six months of the follow-up

FIGURE VII.3

PERCENTAGE WHO RECEIVED AFDC/TANF, FOOD STAMP, SSI/SSA, OR GA BENEFITS, FOR MALES AND FOR FEMALES WITH AND WITHOUT CHILDREN, BY QUARTER

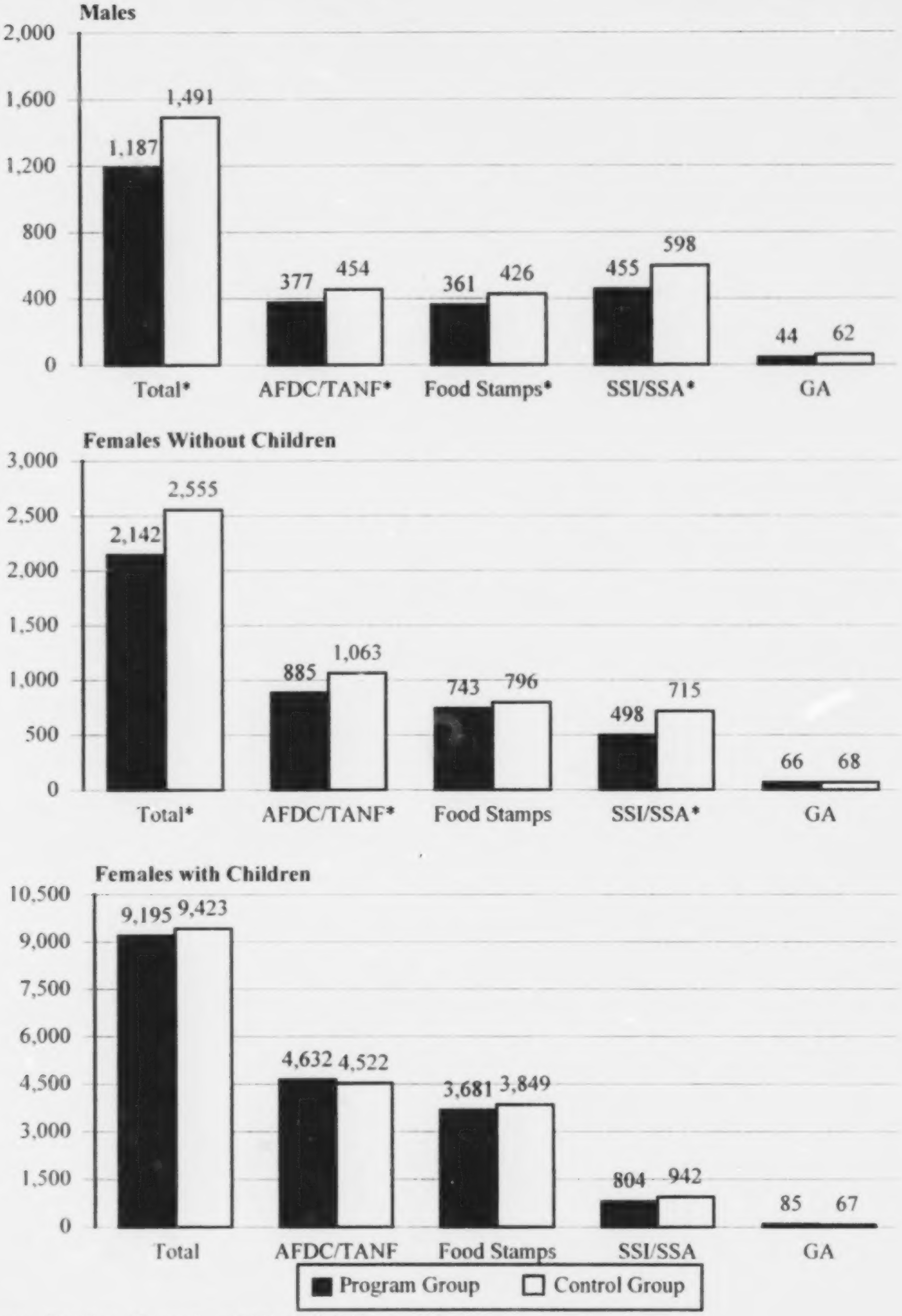


Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

FIGURE VII.4

AVERAGE DOLLAR VALUE OF PUBLIC ASSISTANCE BENEFITS RECEIVED BY MALES AND BY FEMALES WITH AND WITHOUT CHILDREN, BY BENEFIT TYPE



Source: Baseline, 12-month, and 30-month follow-up interviews.

Note: The total benefit figures do not equal the sum of the benefit figures by type because of missing values. significant at the 5 percent level.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

period. Approximately 55 percent of the total amount of benefits that the male control group members received was from AFDC/TANF and food stamps, while about 40 percent was from SSI/SSA, and the balance was from GA.

Impacts on public assistance receipt for males were nearly constant throughout the follow-up period. The difference in the percentage receiving assistance was 3 percentage points. The impact on benefits per month was about $10 per month during the first year, the second year, and the first six months of the third follow-up year. It appears likely that some males in the program group stopped receiving public assistance when they enrolled in Job Corps (because nearly all enrolled as residential students) and continued not receiving it after they left the program.

b. Impacts for Females Without Children

In the control group, welfare receipt among female applicants who had no children was essentially unchanged over the follow-up period. Despite quarter-to-quarter fluctuations, an average of 27 percent of the control group received public assistance in each quarter during the follow-up period. About 70 percent of the total value of benefits these control group members reported receiving was from AFDC/TANF or food stamps.

In contrast to the time profile of impacts on public assistance receipt among the males, impacts among females without children were larger early but declined over time. The impacts on receipt in each quarter were nearly 4 percentage points during the first 12 months and declined to 3 percentage points during the second 12 months. By the last six months of the follow-up period, they were small and not statistically significant. Similarly, the impact on benefits per month declined from $17 to $13 to $9 over this same period. It appears that public assistance receipt was lower for the program group in the first year because the women were in Job Corps. After the first year, however, the rates of receipt among the program group increased as the women had children (as nearly one-third did during the 30-month follow-up period), while the rates of welfare receipt among the control group remained unchanged.

c. Impacts for Females with Children

Females with children at baseline exhibited patterns of public assistance receipt and impacts on these outcomes that differed from those of males and females without children. These differences stem in large measure from the fact that a large fraction of females with children are *nonresidential* students. Not surprisingly, public assistance receipt was much more common for females with children than for males and females without children. About three-quarters of control group females with children typically received public assistance during each quarter in the first year after random assignment. The benefit receipt rate declined during the last six months to just under two-thirds, but it remained high. As one would expect, nearly 90 percent of the public assistance that females with children received over the 30-month follow-up period was AFDC/TANF or food stamps benefits.

The time profile of impacts on the public assistance of females with children also differs from the profiles for males and females without children. In contrast to males (for whom impacts were constant over time) and to females with no children (for whom impacts declined), the impacts on the public assistance receipt of females with children *increased* over the follow-up period. During the first year, the average difference in the percentage receiving public assistance in each quarter was less than 1 percentage point. This average difference increased to about 3 percentage points on average during the second year and to 5 percentage points during the last six months of the follow-up period.

It appears that program group members relied on public assistance to support them and their children while they attended Job Corps, but that some were able to leave public assistance near the end of the 30-month period as their earnings increased. These findings are consistent with our findings that impacts on short-term earnings were relatively large for females with children (see Chapter VI).

d. Impacts for Other Subgroups

There were few differences in impacts on public assistance measures for most other key subgroups defined by youth characteristics (Table E.5). Impact estimates were similar by age, high school credential status, arrest experience, and whether the youth applied before or after the zero-tolerance (ZT) policies took effect. There is some evidence, however, that impacts were larger for whites than for other racial and ethnic subgroups.

B. INVOLVEMENT WITH THE CRIMINAL JUSTICE SYSTEM

Job Corps serves many youths who have been involved with the criminal justice system. Nearly 27 percent of eligible program applicants in our research sample reported that they had been arrested or charged with a delinquency or criminal complaint before random assignment (Schochet 1998a). The arrest rate was even higher (about one-third) for males and those 16 and 17 years old at application to the program. More than 5 percent reported having been arrested for serious crimes (including murder, assault, robbery, or burglary), and the figure is nearly 8 percent for males. About 17 percent were convicted, and about 8 percent (and 10.4 percent of males) ever served time in jail. Because of the high costs of crime both to victims and to the taxpayers in the form of criminal justice system costs, potential reductions in criminal activities from participation in Job Corps could be an important component of program benefits.

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Job Corps is expected to reduce the incidence and severity of crimes committed while students are enrolled in the program, because participants' activities are restricted, their behavior is monitored, and their material needs are met. Because Job Corps students spend most of their time at their center and many centers are in isolated areas, students' opportunities to commit acts that will get them in trouble with the law are somewhat limited. In addition, intensive instructional and recreational activities during the day leave little time for getting into trouble. After students leave the program, reductions in crime are expected to continue because of skills learned in the program, but reductions may be lower than during the in-program period, because the highly structured day and close monitoring will have been removed.

This section presents impacts on self-reported arrests, convictions, and incarcerations resulting from convictions for crimes committed during the 30 months after random assignment. It presents data for the full sample and for key youth subgroups. The analysis was conducted using self-reported data on arrest dates, arrest charges, the disposition of arrest charges, and jail time for convictions.[4]

In a future report, we will present impact estimates on crime measures using official arrest records from selected states. These data will be used to examine the accuracy of the self-reported measures and the extent to which impact estimates differ using the two data sources.

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[4] The analysis used crime data from the 12-month and 30-month interviews. The baseline interview data also contain crime information covering the follow-up period (that is, the period between the random assignment and the baseline interview dates). However, the baseline data do not contain complete conviction and incarceration information, and thus we did not use the baseline crime data in the analysis. The 12-month interview (or the 30-month interview for those who did not complete a 12-month interview) collected complete crime information from the random assignment date onwards (and not from the baseline interview date). Thus, we have complete self-reported crime information covering the 30-month follow-up period.

Job Corps participation led to about a 20 percent reduction in the arrest rate, the conviction rate, and the incarceration rate for convictions during the 30-month period after random assignment. In addition, the reductions were spread fairly uniformly across different types of crimes. Job Corps reduced criminal activities for most groups of students, although crime impacts were smaller for male nonresidents.

1. Impacts on Arrest Rates

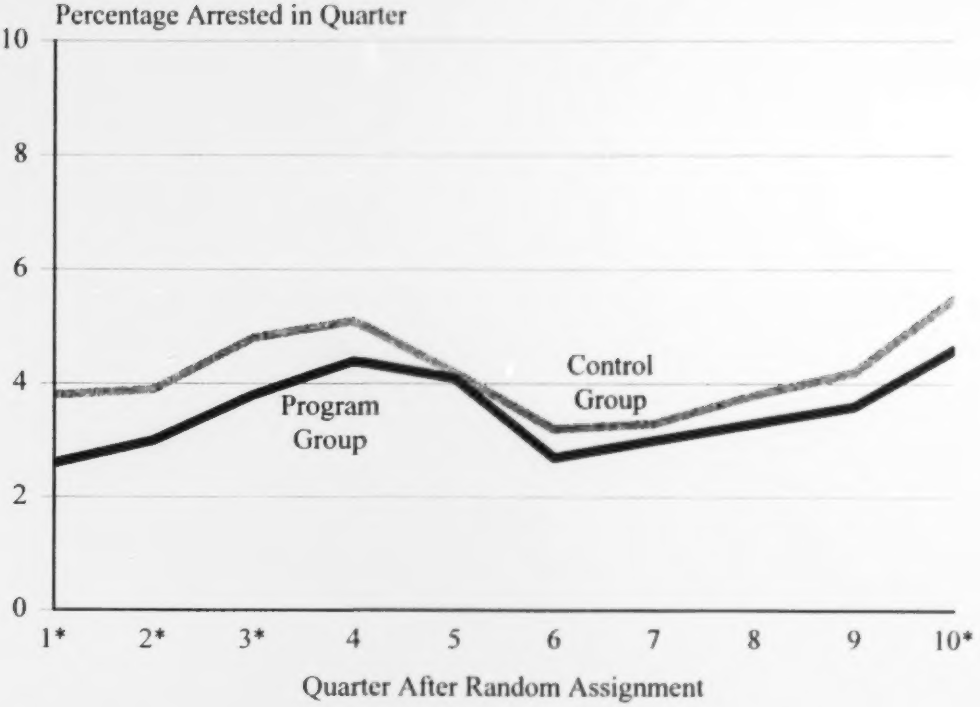
Figure VII.5 displays the percentage of program and control group members who were arrested or charged with a delinquency or criminal complaint, by quarter after random assignment. The differences between the arrest rates by research status are estimated impacts per eligible applicant. Table VII.6 provides detailed information on these estimates and on impact estimates for other arrest-related outcomes.

We anticipated that the arrest rate for the control group (and the program group) would decline over time as sample members matured, but that did not occur. The control group arrest rate increased during the first year after random assignment (from 3.8 percent in quarter 1 to 5.1 percent in quarter 4). The arrest rate then declined to 3.2 percent in quarter 6, but increased to its highest level (5.5 percent) in quarter 10. The increase in the self-reported arrest rate between quarters 1 and 4 and between quarters 6 and 10 could have been due to recall error, because youths were probably better able to recall recent arrests than less recent arrests during the 12-month and 30-month follow-up interviews. With this in mind, we believe that the arrest rates were fairly constant over time.

Overall, about 28 percent of control group members were arrested at some point during the follow-up period (Table VII.6). About 11 percent of control group members (and 40 percent of those

FIGURE VII.5

ARREST RATES, BY QUARTER



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

TABLE VII.6

IMPACTS ON ARRESTS

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Quarter After Random Assignment						
1	2.6	3.8	-1.3***	1.8	-1.7***	-49.7
2	3.0	3.9	-0.9***	2.7	-1.2***	-30.9
3	3.8	4.8	-0.9**	3.6	-1.3**	-26.6
4	4.4	5.1	-0.7*	3.9	-1.0*	-20.6
5	4.1	4.2	-0.1	3.6	-0.1	-2.3
6	2.7	3.2	-0.5	2.5	-0.7	-20.6
7	3.0	3.3	-0.4	3.0	-0.5	-13.8
8	3.3	3.8	-0.5	3.3	-0.7	-18.4
9	3.6	4.2	-0.6*	3.6	-0.8*	-18.8
10	4.6	5.5	-0.9**	4.4	-1.2**	-21.1
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Period						
All months	23.3	27.7	-4.4***	22.0	-6.1***	-21.6
Months 1 to 12	11.6	14.5	-2.9***	10.1	-4.0***	-28.4
Months 13 to 24	11.3	12.1	-0.8	10.8	-1.1	-9.4
Months 25 to 30	7.6	8.9	-1.3**	7.4	-1.7**	-19.0
Number of Times Arrested (Percentages)						
0	77.1	72.6	4.6***[d]	78.5	6.3***	8.7
1	13.5	16.4	-2.8	13.1	-3.9	-22.9
2	5.5	6.5	-1.0	4.9	-1.3	-21.4
3 or more	3.8	4.6	-0.8	3.5	-1.0	-23.2
Average Number of Arrests	0.4	0.5	-0.1***	0.4	-0.1***	-22.8
Months Until First Arrested (Percentages)						
Not arrested	77.1	72.6	4.6***[d]	78.5	6.3***	8.7
Less than 12	11.0	14.0	-3.0	9.5	-4.1	-30.1
12 to 24	7.7	8.7	-1.0	7.8	-1.3	-14.5
25 to 30	4.1	4.8	-0.6	4.2	-0.8	-16.7
Average Months Until First Arrested for Those Arrested	13.9	13.2	0.7**	14.6	0.9**	6.7
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

TABLE VII.6 *(continued)*

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[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] The significance levels pertain to statistical tests for differences in the distribution of the outcome measure for program and control group members.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

arrested) were arrested more than once, and more than one-half of those arrested were arrested within the first year after random assignment.

Job Corps participation led to statistically significant reductions in the arrest rate. While 27.7 percent of control group members were arrested during the 30-month follow-up period, 23.3 percent of program group members were arrested in the same period (a statistically significant impact of -4.4 percentage points per eligible applicant). The arrest rate for program participants was 22 percent, and we estimate that this arrest rate was 6.1 percentage points lower than it would have been if the participants had not enrolled in the program. This impact corresponds to a 22 percent reduction in the arrest rate due to program participation.

Reductions in the arrest rate were largest during the first year after random assignment (when most program enrollees were in Job Corps). However, Job Corps participation also led to reductions in the arrest rate after the youths left the program. For example, arrests were reduced by more than 28 percent during months 1 to 12. However, the arrest rate in months 25 to 30 was about 19 percent lower for participants than it would have been in the absence of the program, and this estimated impact is statistically significant at the 1 percent level.

Given these findings, it is not surprising that the control group had slightly more arrests on average than the program group (0.5, compared to 0.4). These impacts were due to differences in the arrest rate for the program and control groups and not to differences in the average number of arrests for those arrested (which was 1.7 for both groups). Among those arrested, control group members were also typically arrested sooner after random assignment than program group members (13.2 months, on average, as compared to 13.9 months).

2. Impacts on Arrest Charges

We find that Job Corps participation led to a 22 percent reduction in the arrest rate during the 30-month follow-up period. An important policy question is the extent to which these reductions were concentrated in certain types of crimes or were spread uniformly across crime types (that is, the extent to which Job Corps affected the mix of crimes committed by program participants).

To address this issue, we divided crimes into seven categories (Table VII.7) that broadly match crime categories defined by the Bureau of Justice Statistics (BJS). To calculate crime-related social costs as part of the benefit-cost analysis, we will rely heavily on data the BJS collected.

We also estimated impacts separately for finer categories of crimes. However, many of these crimes were rare, so the statistical power for detecting true impacts on them is very low. Furthermore, respondents often did not provide sufficient information about their arrest charges to allow for coding to these finer categories. Hence, some finer charges may be misclassified. Therefore, we focus our discussion on the impact estimates for the broader crime categories. Table F.1 presents the impact results for the finer categories.[5]

Sample members were most frequently arrested for "miscellaneous" crimes, the most common of which were disorderly conduct, liquor violations, parole violations, obstruction of justice, weapons violations, trespassing, and motor vehicle violations (Tables VII.8 and F.1). Nearly 16 percent of control group members were arrested for these crimes. About 7 percent of control group members were arrested for larceny, vehicle theft, or other property crimes; 6 percent were arrested for drug law violations; and 5 percent were arrested for other personal crimes (simple

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[5] We present impact estimates only for crimes that were committed by at least 15 program group members and 15 control group members.

TABLE VII.7

CRIME CATEGORIES

Category	Type of Crime
Murder or Assault	Murder or manslaughter, aggravated assault, forcible rape, kidnapping, justifiable homicide
Robbery	Robbery
Burglary	Burglary
Larceny, Vehicle Theft, or Other Property Crimes	Arson, embezzlement, forgery or counterfeiting, fraud, larceny or theft, motor vehicle theft or carjacking, shoplifting, buying, receiving, or possessing stolen property, vandalism, blackmail or extortion, bad checks
Drug-Law Violations	Use or possession of drugs or drug equipment violations, sale or manufacture of drugs
Other Personal Crimes	Simple assault, family offenses, sex offenses other than rape, fighting
Other Miscellaneous Crimes	Disorderly conduct, liquor-related crimes, gambling, loitering or vagrancy or curfew violations, parole or probation violation, prostitution, weapons offenses, bribery, being a peeping tom, trespassing of real property, having an outstanding warrant, pornography, obstruction of justice, motor vehicle violations, smoking cigarettes underage, truancy, being a runaway

TABLE VII.8

IMPACTS ON ARREST CHARGES

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Most Serious Charge for Which Arrested (Percentages)						
Never arrested	77.1	72.7	4.4***[d]	78.4	6.1***[d]	8.4
Murder or assault	3.2	3.3	-0.1	3.2	-0.1	-4.2
Robbery	1.1	1.3	-0.2	1.0	-0.3	-21.0
Burglary	1.7	2.1	-0.4	1.4	-0.5	-26.5
Larceny, vehicle theft, or other property crimes	4.5	5.3	-0.8	4.3	-1.1	-20.4
Drug law violations	3.5	4.4	-1.0	3.3	-1.4	-29.3
Other personal crimes	2.4	2.7	-0.3	2.3	-0.5	-16.8
Other miscellaneous crimes	6.5	8.1	-1.6	6.0	-2.3	-27.3
Percentage Had a Serious Arrest Charge[e]	6.1	6.7	-0.7	5.6	-0.9	-13.8
All Charges for Which Arrested (Percentages)						
Murder or assault	3.2	3.3	-0.1	3.2	-0.1	-4.0
Robbery	1.5	1.7	-0.2	1.4	-0.2	-15.0
Burglary	2.1	2.4	-0.3	1.8	-0.4	-19.2
Larceny, vehicle theft, or other property crimes	5.9	6.8	-0.8*	5.4	-1.2*	-17.8
Drug law violations	4.9	5.7	-0.9**	4.7	-1.2**	-20.0
Other personal crimes	3.9	4.5	-0.7*	3.9	-0.9*	-19.0
Other miscellaneous crimes	12.3	15.6	-3.3***	11.2	-4.5***	-28.9
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

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[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] The significance levels pertain to statistical tests for differences in the distribution of the outcome measure for program and control group members.

[e] Serious arrest charges include murder or assault, robbery, or burglary.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

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assault was the most common of these charges). Nearly 7 percent of control group members were arrested for serious crimes (aggravated assault, murder, robbery, or burglary).

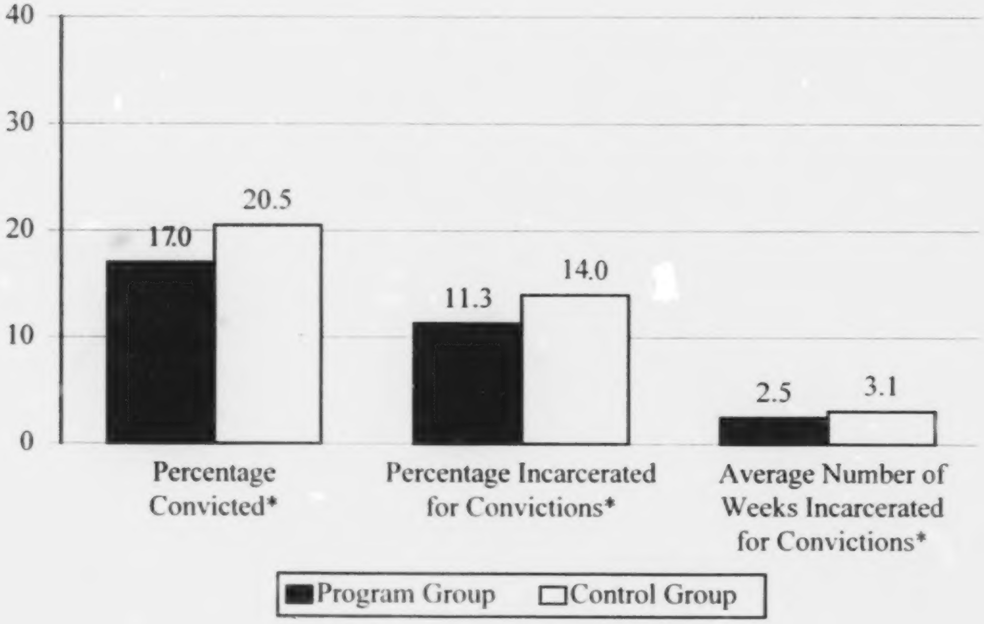
Program group members were less likely to have arrest charges for *all* categories of crimes, which suggests that crime reductions due to Job Corps participation were spread uniformly across crime types. The reductions for miscellaneous crimes (the most common type) were slightly larger in proportional terms than for the other crime categories. The proportion of participants who were arrested for miscellaneous crimes was about 4.5 percentage points lower than it would have been in the absence of the program. This impact translates into a reduction in these crimes of about 29 percent. Job Corps participation also reduced the arrest rate for more serious crimes (such as robbery, burglary, larceny, drug law violations, and other personal crimes) by about 20 percent. The magnitude of the impacts was smaller for these crimes than for miscellaneous crimes, and the impacts on robberies and burglaries are not statistically significant at the 10 percent level. However, these crimes were much less common, and thus the impacts relative to the control group mean were similar in proportional terms. The program had the smallest effect on arrests for crimes in the murder and assault category.

3. Impacts on Convictions

Beneficial program impacts on arrest-related outcomes translated into beneficial impacts on conviction-related outcomes (Figure VII.6 and Table VII.9). Nearly 21 percent of control group members were convicted, pled guilty, or were adjudged delinquent during the 30-month follow-up period, compared to 17 percent of program group members (and 16 percent of Job Corps participants). These impacts were due to differences in the arrest rate by research status and not to differences in the conviction rate among those arrested (because about three-quarters of those

FIGURE VII.6

CONVICTIONS AND INCARCERATIONS RESULTING FROM CONVICTIONS DURING THE 30 MONTHS AFTER RANDOM ASSIGNMENT



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

TABLE VII.9

IMPACTS ON CONVICTION RATES AND CHARGES

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Percentage Convicted, Pled Guilty, or Adjudged Delinquent During the 30 Months After Random Assignment	17.0	20.5	-3.5***	16.0	-4.8***	-23.0
Number of Times Convicted (Percentages)						
0	83.1	79.6	3.5***d	84.1	4.8***d	6.0
1	11.5	13.6	-2.1	11.3	-2.9	-20.6
2	3.7	4.8	-1.0	3.3	-1.4	-29.6
3 or more	1.7	2.1	-0.4	1.4	-0.5	-25.7
Average Number of Times Convicted	0.2	0.3	-0.1***	0.2	-0.1***	-25.7
Percentage Made a Deal or Plea-Bargained	8.4	10.1	-1.7***	7.5	-2.3***	-23.5
Most Serious Charge for Which Convicted (Percentages)						
Never convicted	83.3	80.0	3.4***d	84.4	4.6***d	5.8
Murder or assault	1.5	1.6	-0.1	1.4	-0.1	-8.2
Robbery	0.9	1.1	-0.3	0.7	-0.4	-34.6
Burglary	1.3	1.6	-0.3	1.2	-0.4	-26.2
Larceny, vehicle theft, or other property crimes	3.5	3.9	-0.4	3.3	-0.5	-13.1
Drug law violations	2.9	3.5	-0.6	2.6	-0.8	-23.8
Other personal crimes	1.7	1.9	-0.2	1.7	-0.2	-11.3
Other miscellaneous crimes	4.9	6.5	-1.6	4.8	-2.2	-31.6
All Charges for Which Convicted (Percentages)						
Murder or assault	1.5	1.6	-0.1	1.4	-0.1	-8.2
Robbery	1.1	1.3	-0.3	0.8	-0.3	-31.5
Burglary	1.4	1.8	-0.4*	1.3	-0.5*	-29.7
Larceny, vehicle theft, or other property crimes	4.2	4.5	-0.3	3.9	-0.4	-9.9
Drug law violations	3.6	4.0	-0.3	3.3	-0.4	-11.6
Other personal crimes	2.3	2.7	-0.4	2.3	-0.5	-18.5
Other miscellaneous crimes	8.2	10.2	-2.1***	7.5	-2.8***	-27.4
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

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TABLE VII.9 *(continued)*

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[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] The significance levels pertain to statistical tests for differences in the distribution of the outcome measure for program and control group members.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

arrested were convicted in both groups). The statistically significant impact on the conviction rate for participants was about 5 percentage points--a 23 percent reduction. Similarly, control group members had more convictions on average than program group members (0.3, compared to 0.2).[6]

Job Corps participation reduced convictions for all types of charges, and the pattern of findings closely follows the pattern for the arrest charges. For example, the impacts on conviction charges were largest for those convicted of miscellaneous crimes but were similar in proportional terms (that is, relative to the control group mean) across most crime types.

There is evidence that conviction charges were less serious than arrest charges. For example, 10.1 percent of control group and 8.4 percent of program group members made a deal or plea-bargained. Furthermore, a higher proportion of youths were arrested for violent crimes than were convicted of these crimes.

4. Impacts on Incarcerations Resulting from Convictions and on Probation and Parole Rates

Job Corps participation also reduced incarceration rates and the time spent incarcerated resulting from convictions (Figure VII.6 and Table VII.10).[7] About 14 percent of control group members were ever incarcerated for convictions, compared to 11.3 percent for program group members (a statistically significant impact of 2.8 percentage points per eligible applicant). The impact per participant was about 3.8 percentage points (a 27 percent reduction in the incarceration rate). These impacts were due to impacts on the conviction rate and not to differences in the incarceration rate

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[6] We did not obtain information on the dates that youth were convicted. We examined conviction rates over time by using the arrest date that corresponded to each conviction. These estimates were difficult to interpret, however, because of the lag between arrests and convictions and because of differences in the lag by type of crime. Thus, we do not report these estimates.

[7] We collected incarceration information for those who were convicted, pled guilty, or were adjudged delinquent. We did not collect incarceration information for those whose arrest charges were dismissed or dropped or who were acquitted.

TABLE VII.10

IMPACTS ON INCARCERATIONS RESULTING FROM CONVICTIONS AND ON PROBATION AND PAROLE RATES

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Percentage Served Time in Jail for Convictions During the 30 Months After Random Assignment	11.3	14.0	-2.8***	10.2	-3.8***	-27.2
Total Number of Months Ever in Jail for Convictions (Percentages)						
0	89.7	86.9	2.8***[d]	90.5	3.8***[d]	4.3
Less than 1	3.5	5.1	-1.6	3.6	-2.2	-37.5
1 to 3	2.0	2.2	-0.2	1.7	-0.3	-13.1
3 to 6	1.5	1.8	-0.3	1.5	-0.5	-23.6
6 to 12	1.5	1.9	-0.4	1.3	-0.5	-27.3
12 or more	1.8	2.1	-0.3	1.3	-0.4	-22.4
Average Time in Jail						
Months	0.6	0.7	-0.1**	0.5	-0.2**	-28.3
Weeks	2.5	3.1	-0.6**	2.1	-0.8**	-28.3
Percentage Ever Put on Probation or Parole	9.9	11.5	-1.7***	9.0	-2.3***	-20.1
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] The significance levels pertain to statistical tests for differences in the distribution of the outcome measure for program and control group members.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

among those convicted (which was about two-thirds for each group). Participants spent an average of 2.1 weeks in jail but spent an average of about six days (0.8 weeks) less in jail than they would have if they had not enrolled in Job Corps.[8] This impact translates to a 28 percent reduction in time spent in jail during the 30-month follow-up period.

Job Corps also had an effect on the percentage of participants who were put on probation or parole for crimes committed after random assignment. About 11.5 percent of control group members were put on probation or parole, compared to 9.9 percent of program group members (and 9 percent of participants). The impact per participant, 2.3 percentage points, is statistically significant.

5. Subgroup Results

For the analysis of subgroup impacts on crime-related outcomes, we focus on subgroups defined by age, gender, and residential designation status. We hypothesized that crime impacts would differ across age and gender subgroups because of differences in their baseline characteristics and, in particular, because of substantial differences in their experiences with the criminal justice system before program application. For example, a higher proportion of younger than older applicants in our sample reported having ever been arrested before program application, and the arrest rate for males was double that of females during the preprogram period.. We expected that crime impacts would be larger for residential than nonresidential students, because students living on center would have less opportunity to get into trouble with the law than students who train on center during the day but return home at night.

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[8] Incarcerated youth spent an average of about six months in jail for both research groups.

In this section, we present impact findings on the full set of crime measures for these key subgroups. Then we briefly present impact findings on key crime measures for other subgroups defined by youth characteristics.

a. Impacts by Age

As expected, the younger sample reported more arrests than the older sample (Figure VII.7 and Tables F.2 to F.4). More than 35 percent of control group members who were 16 and 17 at program application were ever arrested during the 30-month follow-up period, compared to about 26 percent of those 18 and 19, and about 19 percent of those 20 to 24.[9] In addition, arrest rates were higher for the younger applicants in each quarter (they were about 5.5 percent per quarter for the youngest group and about 2.5 percent per quarter for the oldest group). Furthermore, conviction and incarceration rates resulting from convictions were highest for the youngest group. This same age pattern holds for males and females (not shown).

These findings are consistent with published statistics that report that criminal activity typically declines as teenagers mature. The findings may also be due to the fact that the younger applicants were somewhat more disadvantaged at baseline (and in particular, had higher reported arrest rates) and thus may have reported higher crime activity during the follow-up period.

Although the *level* of involvement with the criminal justice system differed by age, the crime *impacts* were very similar by age. Arrest, conviction, and incarceration rates were significantly higher for the control group than the program group for all three age groups, and the size of the impacts was similar (although the percentage reduction in the crime measures due to program participation was larger for the older groups because of their lower level of criminal activity). The

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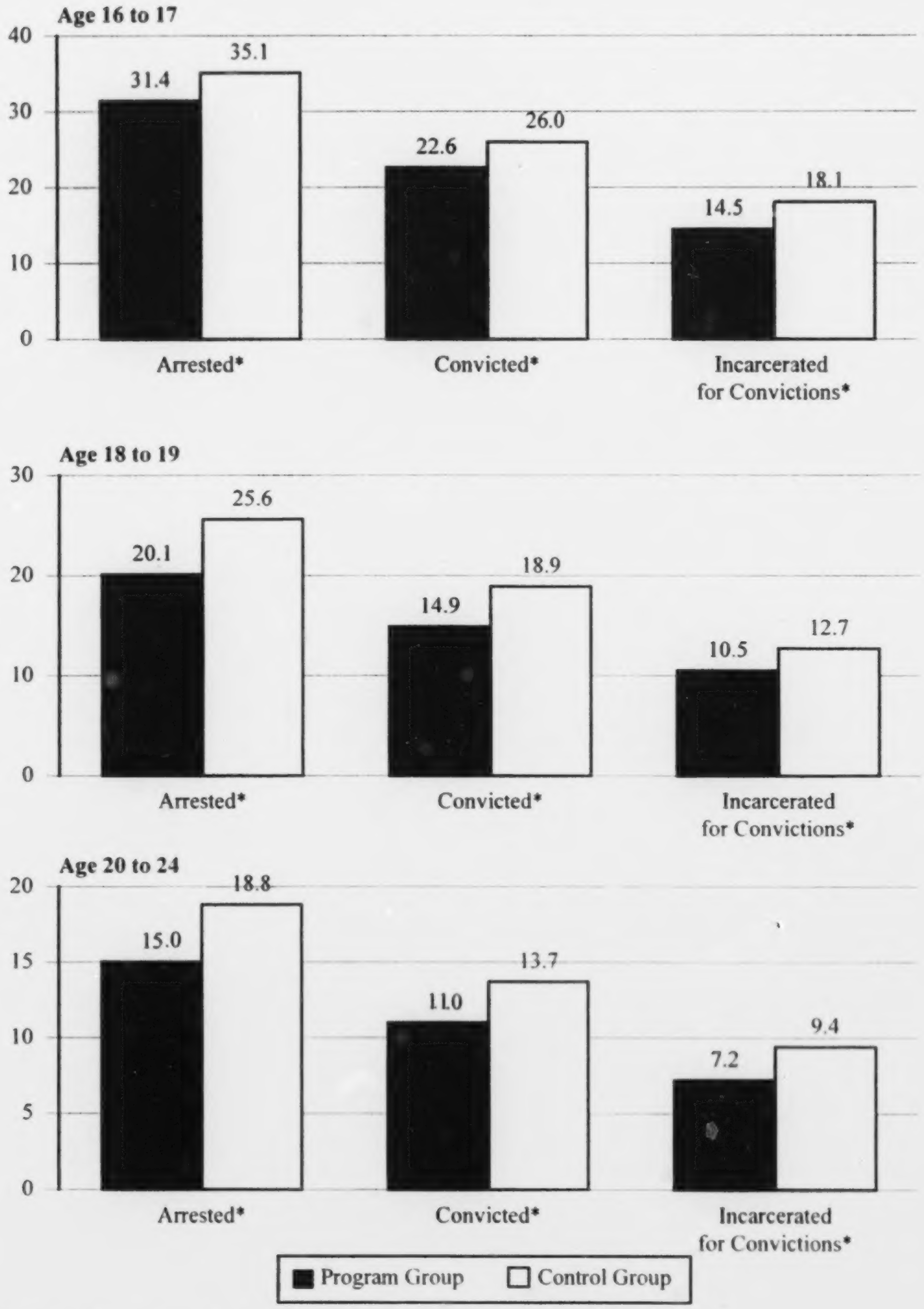
[9] The distribution of arrest charges for those arrested, however, was similar by age.

FIGURE VII.7

PERCENTAGE EVER ARRESTED, CONVICTED, AND INCARCERATED FOR CONVICTIONS DURING THE 30-MONTH PERIOD, BY AGE



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

impacts on the types of arrest and conviction charges were also similar. These same results hold for males and females.

There were some age differences, however, in the pattern of impacts over time. For those 16 and 17, the arrest rate reductions were largest early in the follow-up period (Table F.2). Arrest rate reductions for the youngest group, about 40 percent during the first two quarters after random assignment, were caused by low arrest rates among the program group (because many program group members were enrolled in Job Corps during this period). The impacts were not statistically significant after the second quarter (although control group arrest rates were higher in each quarter) because the program group arrest rate increased somewhat as participants started leaving Job Corps. Thus, the impacts for those 16 and 17 were largely concentrated in the early in-program period.[10]

Impacts for the older youths, however, occurred more uniformly across the follow-up period; the arrest rate reductions were statistically significant in months 1 to 12 and months 25 to 30 for both of the older groups (Tables F.3 and F.4). The impacts were more sustained for the older applicants, because the arrest rate among the older participants did not increase as much during the postprogram period as they did for the younger participants.

b. Impacts by Gender

Not surprisingly, males had much higher arrest, conviction, and incarceration rates than females during the follow-up period (Figure VII.8 and Tables F.5 and F.6). About 38 percent of control group males were ever arrested, compared to only 13 percent of control group females, and the 30-month conviction rate was more than 28 percent for males but only 9 percent for females. More than 20 percent of control group males were incarcerated for convictions, as compared to a fourth of that

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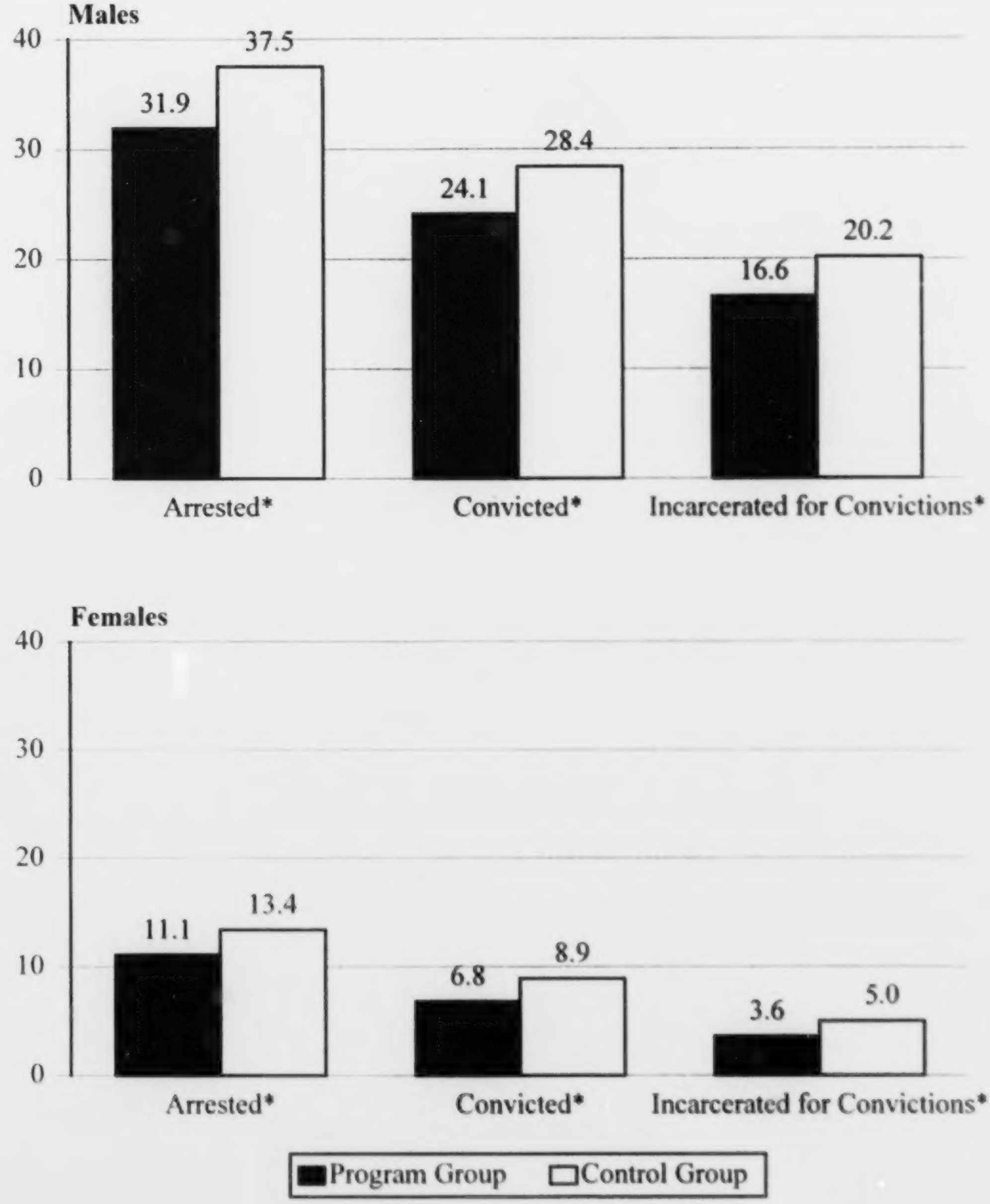
[10] As discussed below, these findings hold for males but not for females.

FIGURE VII.8

PERCENTAGE EVER ARRESTED, CONVICTED, AND INCARCERATED FOR CONVICTIONS DURING THE 30-MONTH PERIOD, BY GENDER



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

for control group females. In addition, among those arrested, males were much more likely than females to have committed serious crimes.

Overall, we find that impacts on key crime measures were very similar for males and females, despite substantial differences in their levels of involvement with the criminal justice system. For example, even though arrest rates were three times higher for males than females, Job Corps participation reduced arrest rates by about 20 percent for participants in each group. Percentage reductions in convictions and incarcerations resulting from convictions were also similar by gender. Furthermore, the pattern of impacts by type of charge did not differ substantially for the two groups. Finally, impacts persisted over time for both groups, although they diminished for males, largely because of the 16- and 17-year-old males, whose impacts were largely concentrated in the early period.

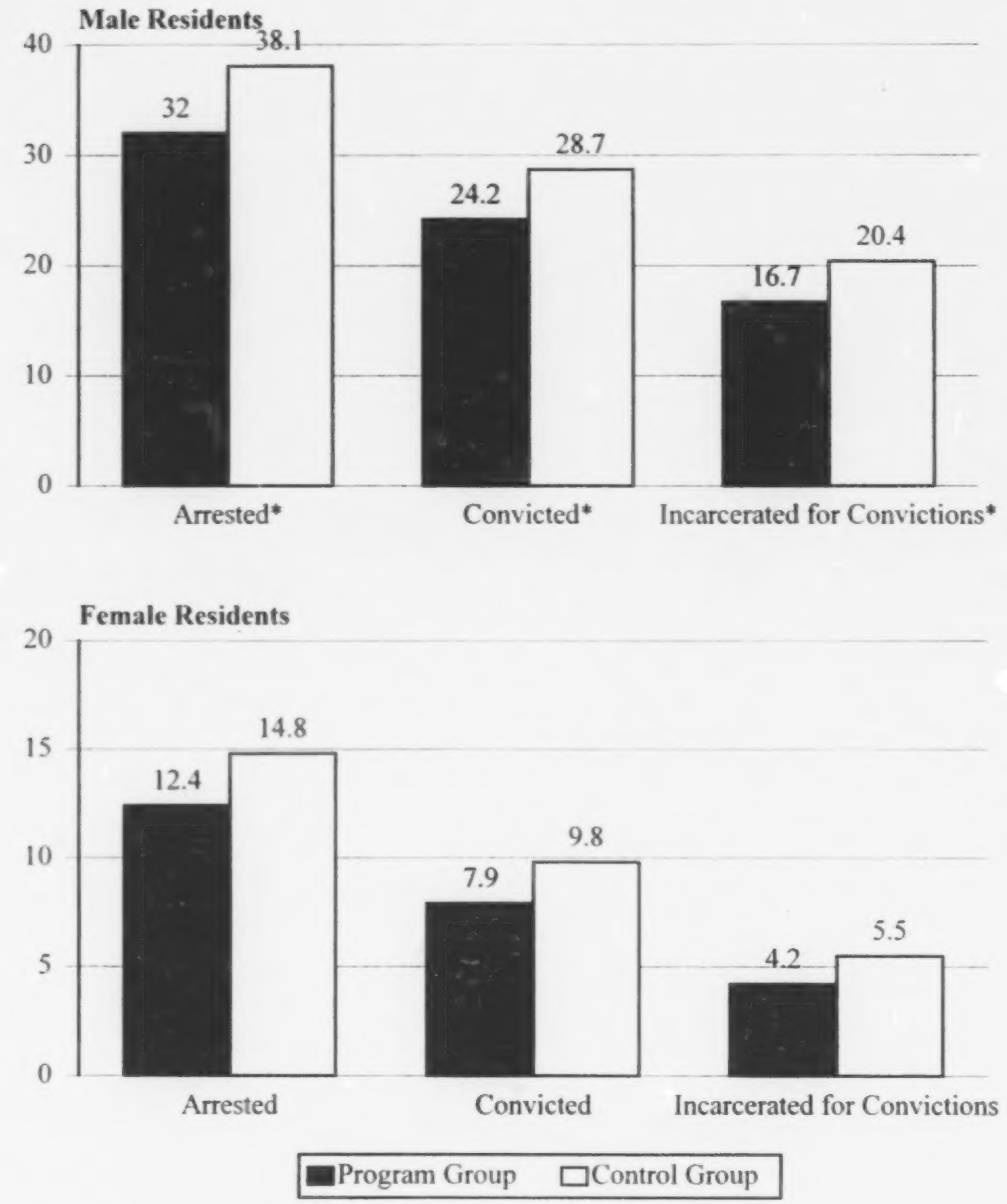
We do find some important differences in the gender findings for residents and nonresidents, however, as we discuss next.

c. Impacts for Residents and Nonresidents

For both males and females, criminal justice system involvement was higher for those designated for residential slots than for those designated for nonresidential slots (Figures VII.9 and VII.10 and Tables F.7 to F.10). Among the control group, about 38 percent of male residential designees were arrested during the 30 months after random assignment, compared to 29 percent of male nonresidential designees; the arrest rates for control group females in the two components were 15 and 9 percent, respectively. These findings reflect differences in the characteristics of students who are suitable for the residential and nonresidential components. They are consistent with what

FIGURE VII.9

PERCENTAGE EVER ARRESTED, CONVICTED, AND INCARCERATED FOR CONVICTIONS DURING THE 30-MONTH PERIOD FOR RESIDENTIAL DESIGNEES, BY GENDER

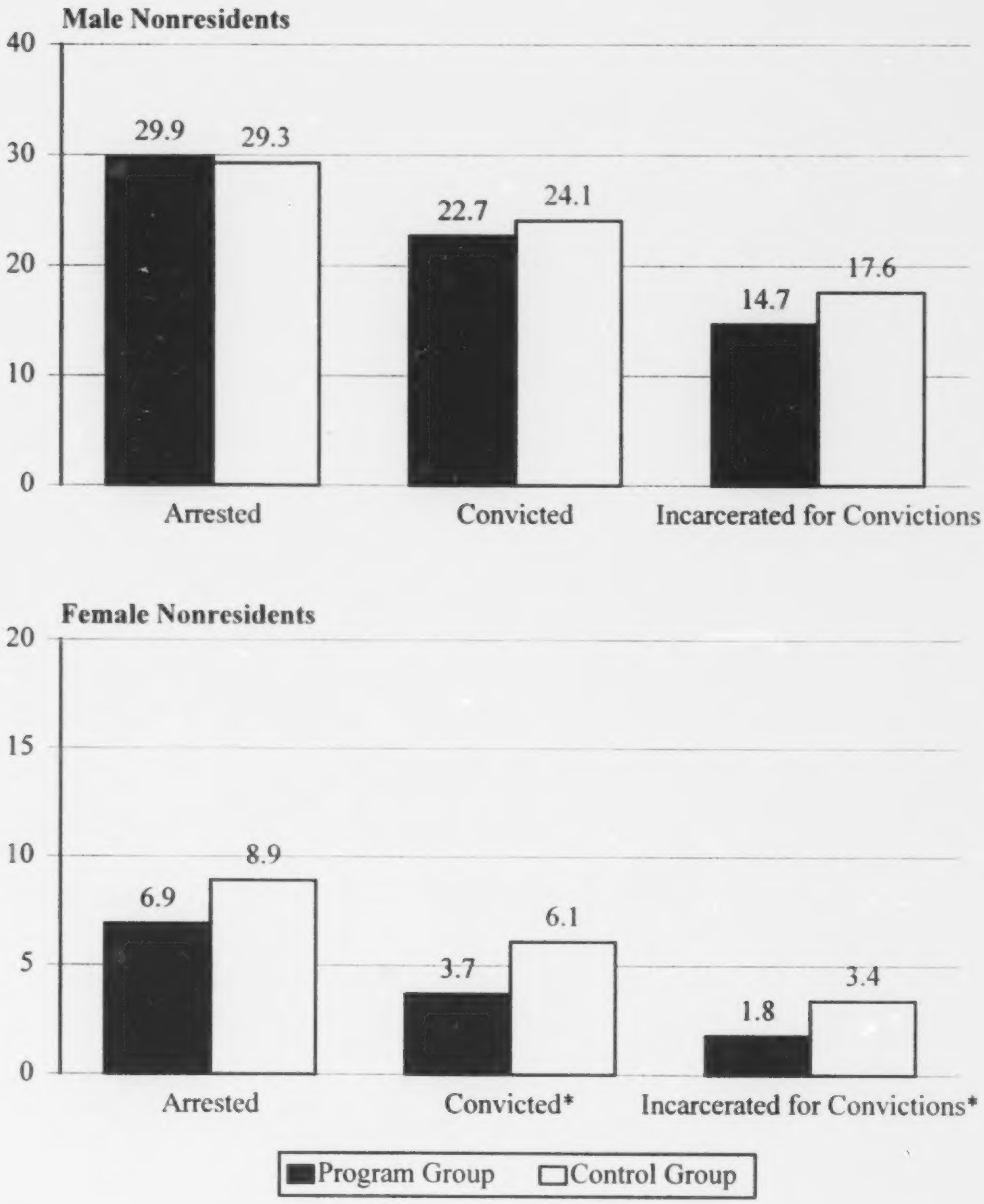


Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

FIGURE VII.10

PERCENTAGE EVER ARRESTED, CONVICTED, AND INCARCERATED FOR CONVICTIONS DURING THE 30-MONTH PERIOD FOR NONRESIDENTIAL DESIGNEES, BY GENDER



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

one would expect given that residential students are deemed to need training away from their home communities, whereas nonresidential students are not.

Participation in the residential component led to reductions in criminal activity for both males and females. About 38 percent of control group males designated for residential slots were ever arrested, compared to 32 percent of program group males designated for residential slots (a statistically significant impact of about 6 percentage points per eligible applicant). These arrest rate reductions were largest during the first year after random assignment, but they did persist afterwards. Similarly, the impact on the 30-month arrest rate for residential females was -2.4 percentage points (12.4 percent for the program group and 14.8 percent for the control group). These findings suggest that removing disadvantaged youths from their home environments into a residential program for a significant period of time can reduce their involvement with the criminal justice system both while they are enrolled in the program and afterwards.

Criminal involvement was reduced for females designated for nonresidential slots, but the program was less effective for males designated for nonresidential slots. The crime impacts were similar for female residential and female nonresidential designees. The impact on the arrest rate for male nonresidential designees, however, was close to zero (29.9 percent for the program group and 29.3 percent for the control group). Moreover, impacts on five of the seven arrest charge categories were positive (although none is statistically significant). The impacts on the conviction and incarceration rates for the nonresidential males, while larger than the impact on the arrest rate, are not statistically significant.

We emphasize again that our results for males do not necessarily imply that males in the nonresidential component would have better average crime outcomes if they were instead assigned to the residential component. As discussed, differences between the characteristics of males assigned to each component could lead to misleading conclusions about how each group would fare in the other component.

d. Impacts for Other Subgroups

Job Corps reduced involvement with the criminal justice system during the 30-month period after random assignment across nearly all other key subgroups defined by youth characteristics (Table F.11). Impacts were similar for females with and without children at baseline, by race and ethnicity, and for those with and without a high school credential at baseline (despite the fact that the arrest rate was about twice as high for those without a credential). Job Corps significantly reduced criminal activities for those who reported having arrests prior to random assignment and for those who did not (although the arrest rate was 40 percent for the arrested group). There is some evidence, however, that impacts on the arrest outcomes were smaller for those with serious arrests.

Finally, impacts were somewhat larger for the post-ZT group than for the pre-ZT group. These results, however, should be interpreted with caution, for two reasons. First, the pre-ZT group measures are contaminated, because program group enrollees in this group spent about 78 percent of their total time in Job Corps after the ZT policies took effect. Second, differences in the impact estimates were due not to differences in crime rates for program group members in the two ZT groups (as would be expected under the stricter ZT policies). Instead, they were due to lower crime rates for the control group in the pre-ZT group (which is contrary to expectations, because the ZT policies may have discouraged those with arrest histories from applying to the program or made them ineligible for the program).

C. TOBACCO, ALCOHOL, AND ILLEGAL DRUG USE AND HEALTH

Job Corps may reduce participants' drug and alcohol use, both during and after the program. Reductions in the use of drugs and alcohol are expected while youths are enrolled in the program, because Job Corps forbids the use of these substances at centers and because behavior is closely monitored. When students first arrive on center, they are required to take a drug test, and those who test positive are given 45 days to become drug free. Even after the 45-day period, all students are subject to drug testing if they are suspected of using drugs. Students who are found not to be drug free after the 45-day probationary period are terminated from the program.[11] Because many students test positive for drugs upon enrollment, and because most students stay in the program for an extended period, students may be less likely to use illegal drugs while enrolled than they would otherwise.

Job Corps also provides some alcohol and drug treatment. If students test positive, they must attend the alcohol and other drugs of abuse (AODA) program. Other students may participate voluntarily. As discussed in Chapter IV, nearly one-half of program group enrollees attended the AODA program, which covers the Job Corps ZT policy, anger control, self-esteem building, and other topics that teach students about decision making. The AODA program may change student attitudes about drug use and provide students with tools to stay off drugs. These factors could lead to reductions in the use of drugs both while students are enrolled in the program and afterwards. Because of the AODA program, participation in Job Corps might also reduce the use of drug treatment programs outside Job Corps.[12]

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[11] At the time program group members were enrolled in Job Corps, the probationary period was 30 days, not 45 days.

[12] Possible savings to society due to reductions in the use of alcohol and drug treatment programs will be calculated as part of the benefit-cost analysis.

Job Corps is also expected to improve participants' overall health status, because it offers comprehensive health services and health education. All students are required to submit to a medical examination, including a blood test for HIV, within two weeks of arrival on center. Centers offer basic medical services to students, including routine medical, dental, and mental health care, daily sick call, and any necessary specialist referrals and consultations. We found from our site visits to centers that many youths did not have access to this type of health care prior to enrollment. Thus, it is likely that students receive better health care on center than they would otherwise, which could improve health during both the in-program and the postprogram periods.

Because Job Corps offers health education, it may also improve participants' health in both the short and the long term. Chapter IV showed that about three-quarters of students in the program group took health education classes, which include units on emotional and social well-being, human sexuality, sexually transmitted diseases, nutrition, fitness, dental hygiene, consumer health, and safety. These classes are designed specifically to increase participants' awareness of health issues and instill attitudes conducive to healthful behavior.

Most youths eligible for Job Corps are in good health, because eligibility requires that an applicant be free of any serious medical problems. The baseline interview data reveal that about 85 percent of sample members reported being in good or excellent health (Schochet 1998a). Thus, we expect small impacts on overall health outcomes.

This section presents impacts on self-reported (1) tobacco, alcohol, and illegal drug use; (2) time spent in drug or alcohol treatment outside Job Corps; and (3) health status. For the tobacco, alcohol, and illegal drug use measures, we used self-reported data on the extent to which sample members used these substances in the 30 days prior to the 12-month and 30-month interviews. For the drug and alcohol treatment measures, we used information on dates of treatment and the types of treatment programs that were attended. For the health outcomes, we used self-reported information on whether the youth's health was excellent, good, fair, or poor at the 12-month and 30-month interviews; whether the youth had a serious physical or emotional problem that limited the amount of work that could be done; and, if so, the nature and duration of the problem.

Next, we discuss impact findings for the full sample. Then we present impact findings for key youth subgroups. Appendixes G and H contain supplementary tables.

1. Impacts on Tobacco Use

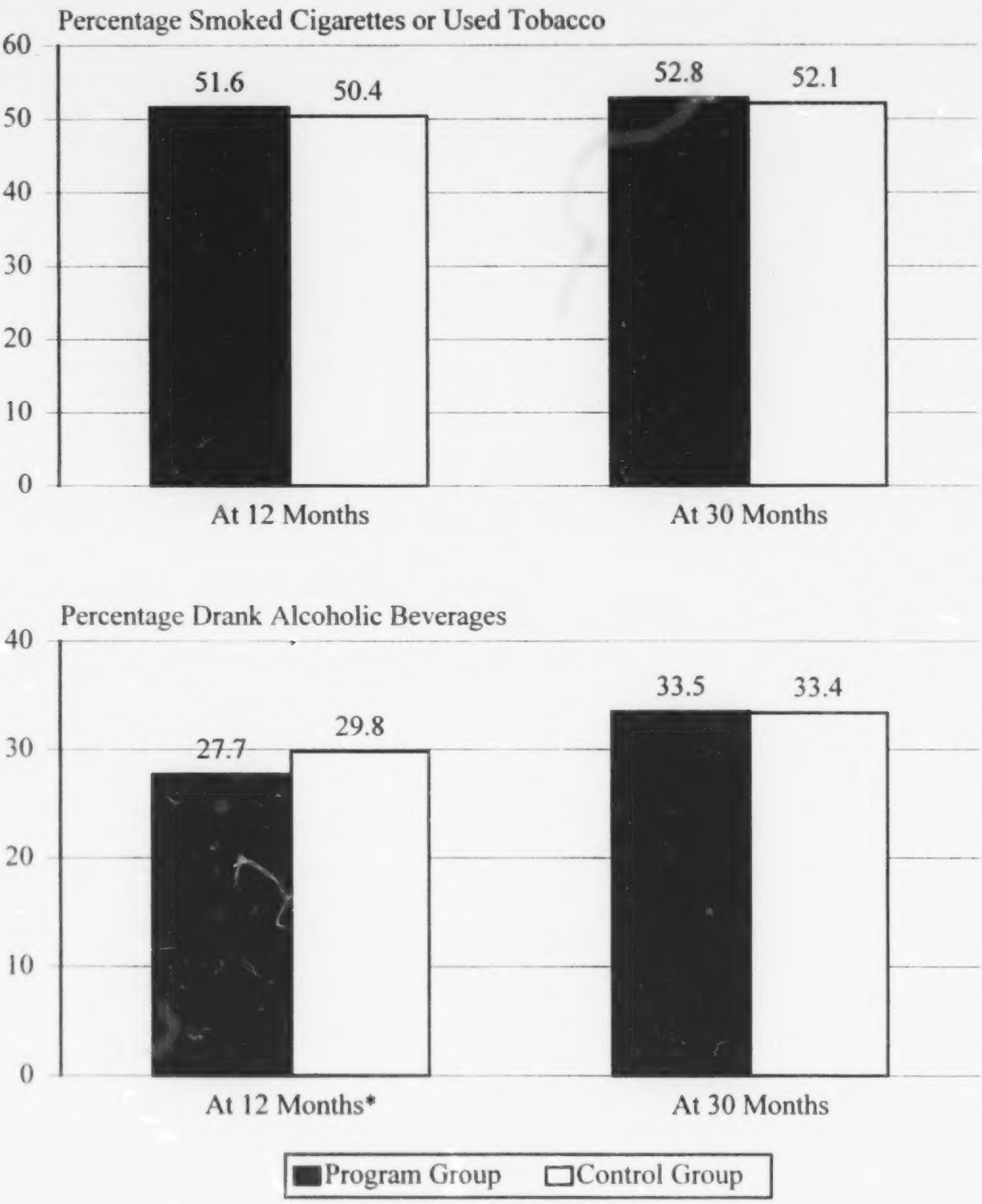
Job Corps had no effect on cigarette smoking (Figure VII.11 and Table VII.11). About half of both the control and program groups smoked cigarettes in the month prior to the 12-month interview. The percentages of youth who smoked cigarettes at 30 months were almost identical. Most smokers smoked regularly (Table G.1).

2. Impacts on Alcohol Use

Participation in Job Corps slightly reduced the consumption of alcoholic beverages at 12 months but not at 30 months (Figure VII.11 and Table VII.11). These findings suggest that alcohol use is reduced while youth are enrolled in Job Corps, but that reductions do not persist afterwards. (Recall that approximately 28 percent of the program group participated in Job Corps in quarter 4.) About 30 percent of control group members drank alcoholic beverages in the month prior to the 12-month interview, compared to about 28 percent of program group members (a statistically significant impact of -2 percentage points per eligible applicant). This impact translates to a 9.5 percent reduction due to program participation. The percentage who used alcohol at 30 months increased to about one-third for each group. About half of those who drank at 30 months did so at least once per week (Table G.1).

FIGURE VII.11

TOBACCO AND ALCOHOL USE IN THE 30 DAYS PRIOR TO THE 12- AND 30-MONTH INTERVIEWS



Source: Baseline, 12-month, and 30-month follow-up iInterviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

TABLE VII.11

TOBACCO, ALCOHOL, AND ILLEGAL DRUG USE IN THE 30 DAYS PRIOR TO THE 12- AND 30-MONTH FOLLOW-UP INTERVIEWS

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Smoked Cigarettes						
At 12 months	51.6	50.4	1.1	52.6	1.6	3.1
At 30 months	52.8	52.1	0.7	53.2	1.0	1.9
Consumed Alcoholic Beverages						
At 12 months	27.7	29.8	-2.1**	27.1	-2.9**	-9.5
At 30 months	33.5	33.4	0.1	33.4	0.1	0.4
Used Marijuana, Hashish, or Hard Drugs						
At 12 months	9.9	9.2	0.7	10.3	1.0	10.4
At 30 months	8.6	8.7	-0.1	9.0	-0.1	-1.2
Used Marijuana or Hashish						
At 12 months	9.5	8.5	1.0*	9.8	1.3*	15.8
At 30 months	8.2	8.4	-0.2	8.6	-0.3	-3.4
Used Hard Drugs						
At 12 months	1.7	1.8	-0.1	1.8	-0.1	-5.0
At 30 months	1.7	1.7	-0.1	1.8	-0.1	-4.2
Snorted Cocaine Powder						
At 12 months	0.4	0.3	0.1	0.4	0.1	47.8
At 30 months	0.3	0.4	-0.1	0.3	-0.1	-24.3
Smoked Crack Cocaine or Freebased						
At 12 months	0.1	0.1	0.0	0.1	0.0	6.6
At 30 months	0.1	0.1	0.0	0.1	0.0	-17.0
Used Speed, Uppers, or Methamphetamines						
At 12 months	0.4	0.6	-0.2	0.5	-0.2	-29.5
At 30 months	0.5	0.6	-0.1	0.6	-0.1	-13.1
Used Hallucinogenic Drugs						
At 12 months	0.8	0.9	-0.1	0.9	-0.1	-12.7
At 30 months	0.6	0.6	0.0	0.7	0.1	9.7
Used Heroin, Opium, Methadone, or Downers						
At 12 months	0.1	0.1	0.0	0.1	0.1	72.8
At 30 months	0.1	0.2	-0.1	0.1	-0.1	-47.0
Used Other Drugs						
At 12 months	0.3	0.3	0.0	0.2	0.0	-3.9
At 30 months	0.1	0.1	0.0	0.2	0.1	60.9
Shot or Injected Drugs with a Needle or Syringe						
At 12 months	0.0	0.1	-0.1	0.0	-0.1	-77.5
At 30 months	0.1	0.1	0.0	0.1	0.0	17.4
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

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TABLE VII.11 *(continued)*

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

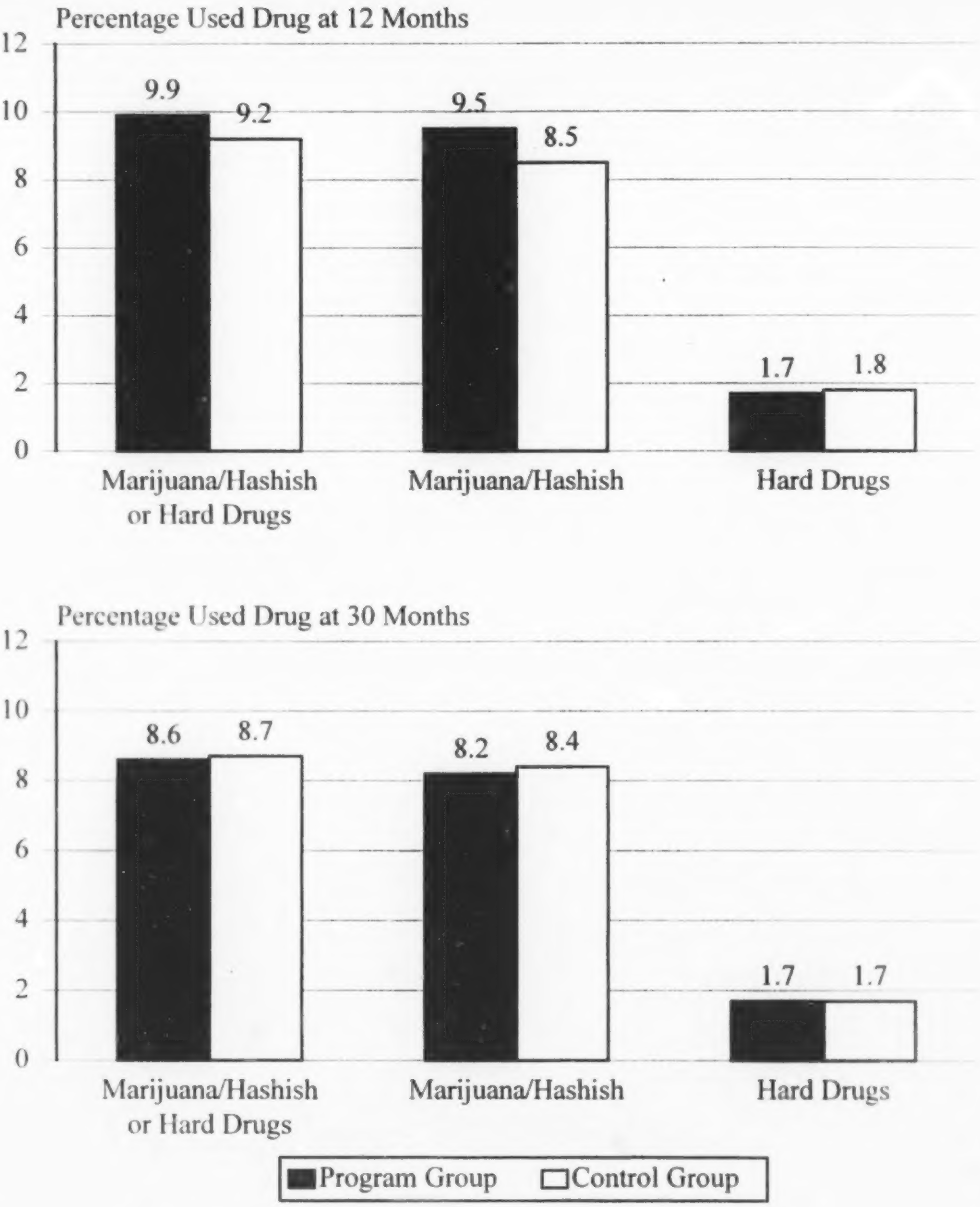
3. Impacts on Illegal Drug Use

We find no impacts on the reported use of illegal drugs at the 12- or 30-month interview points (Figure VII.12 and Table VII.11). Just over 9 percent of each research group reported using any drugs (marijuana, hashish, or hard drugs) in the month prior to the 12-month interview, 9.9 percent of the program group and 9.2 percent of the control group, a difference which is not statistically significant. About 8.6 percent reported using any drugs in the month prior to the 30-month interview. Most drug users reported using marijuana or hashish only; less than 2 percent reported using hard drugs, including cocaine (about 0.4 percent); crack (about 0.1 percent); speed, uppers, or methamphetamines (about 0.5 percent); hallucinogens (about 0.7 percent); and heroin, opium methadone, or downers (about 0.1 percent). The 12- and 30-month impacts for each type of drug are not statistically significant at the 5 percent level.

Impact estimates on illegal drug use should be interpreted with caution, because of the likely underreporting of drug use. Job Corps program records indicate that 33.6 percent of enrollees in 1995 tested positive (from a urine test) for drugs at enrollment, whereas less than 10 percent of sample members reported at the 12-month interview that they used drugs in the past 30 days. Furthermore, rates of drug use for each type of drug were much higher using the program data than the survey data. For example, about 33 percent used marijuana according to the program data, compared to about 9 percent according to the survey data. Similarly, the program data indicate that 1.3 percent used cocaine, whereas only 0.4 percent reported using cocaine at 12 months. To be sure, the rates of drug use might have been greater at program enrollment than at the 12-month interview.

FIGURE VII.12

ILLEGAL DRUG USE IN THE 30 DAYS PRIOR TO THE 12- AND 30-MONTH INTERVIEWS



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

However, the large differences in the levels of drug use from the two data sources strongly suggest that the self-reported measures are too low.[13,14]

This underreporting, however, does *not* necessarily imply that the estimated impacts on the drug use measures are seriously biased. This is because it is likely that both program and control group members underreported their drug use. The extent of the bias in the impact estimates depends on the (unknown) differences in the amount and nature of underreporting for the two research groups. In fact, if the underreporting rates were similar for the program and control groups, then survey-based estimated impacts *relative to the control group mean* (that is, the percentage gain from participation) would be unbiased, even though the impact estimates would be downwardly biased.[15]

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[13] Extensive methodological work on collecting data on illegal drug use has shown that collecting such data through telephone interviews leads to misreporting. Indeed, major national studies designed to measure drug use, such as the National Household Survey of Drug Use, use in-person data collection methods that allow respondents to answer questions about drug use without the interviewer (or anyone else) knowing what the response was. Use of these methods was not feasible for the National Job Corps Study, given that most data were collected through telephone interviews.

[14] We also compared the program data to self-reported drug use measures from the baseline interview because these data were obtained at roughly the same time (see Schochet 1998a which displays the baseline interview measures). Although these two sets of drug use measures are similar, they are not directly comparable. The baseline interview data contain information on drug use in the *past year* (not the past 30 days), whereas the program data contain information on recent drug use. The prevalence of drug use is clearly higher over a longer period than a shorter period. Furthermore, interview respondents may be more likely to admit the use of drugs taken in the past than more recently. Thus, drug use rates calculated using the baseline interview data are probably larger than they would have been if we had asked about recent drug use at baseline.

[15] To illustrate, the impact on a self-reported drug use measure I can be written as follows:

$$(1)\quad I = D_p\,(1\text{-}U_p) - D_c\,(1\text{-}U_c),$$

where D_p is the *true* percentage of program group members who used the drug, U_p is the rate of underreporting for the program group, and similarly for the control group. If the rate of underreporting was similar by research status (and denoted by U), then the impact in equation (1) reduces to $(D_p\text{-}D_c)(1\text{-}U)$, and the control group mean would be $D_c(1\text{-}U)$. In this case, the survey-based estimated impact relative to the control group mean would be $(D_p\text{-}D_c)/D_c$, which is an unbiased

(continued...)

Thus, our results should be interpreted with caution, but should not be not discarded.

4. Impacts on Drug or Alcohol Treatment

Job Corps slightly reduced participation in drug or alcohol treatment programs outside Job Corps (Table VII.12). About 6.4 percent of control group members were ever in a treatment program during the 30 months after random assignment--compared to 5.9 percent of program group members (and 5.6 percent of program group enrollees)--which translates to an 11 percent reduction due to program participation. The small differences persisted throughout the follow-up period but are not statistically significant. The difference between the average number of weeks in treatment was very small (0.8 weeks for the control group and 0.7 weeks for the program group). There were few differences in the places where treatment was received among those treated.

5. Impacts on Health

Job Corps significantly improved participants' self-reported health status at both the 12- and 30-month interview dates (Figure VII.13 and Table VII.13). About 18 percent of control group members reported that they were in fair or poor health at 12 months, compared to about 15 percent of program group members. This 3 percentage point impact per eligible applicant translates to a 4 percentage point impact per participant--or a 20 percent reduction in fair or poor health due to program participation. The impacts were smaller at 30 months but are still statistically significant. We find a similar pattern on the prevalence of those who reported serious physical or emotional problems. Thus, it appears that health services and health education provided by Job Corps

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[15] (...continued)
estimate. If the rates of underreporting differed substantially by research status, then this result does not hold, because the rates of underreporting would not cancel from both the numerator and the denominator.

TABLE VII.12

IMPACTS ON PARTICIPATION IN DRUG OR ALCOHOL TREATMENT PROGRAMS

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Percentage in a Drug or Alcohol Treatment Program						
All months	5.9	6.4	-0.5	5.6	-0.7	-11.0
Months 1 to 12	2.1	2.3	-0.2	2.1	-0.3	-13.6
Months 13 to 24	2.9	3.1	-0.2	2.6	-0.3	-9.8
Months 25 to 30	1.7	2.0	-0.3	1.6	-0.4	-20.6
Average Number of Weeks in a Drug or Alcohol Treatment Program						
All months	0.7	0.8	0.0	0.7	-0.1	-8.3
Months 1 to 12	0.2	0.3	0.0	0.2	0.0	-11.6
Months 13 to 24	0.3	0.3	0.0	0.3	0.0	7.6
Months 25 to 30	0.2	0.2	0.0	0.2	-0.1	-24.9
Place Where Treatment Was Received						
Hospital	0.4	0.6	-0.1	0.4	-0.2	-26.1
Detoxification center	0.4	0.4	0.1	0.3	0.1	47.4
Short-term residential program	0.9	1.4	-0.5**	0.9	-0.7**	-43.8
Long-term residential program	0.4	0.6	-0.2	0.3	-0.2	-44.9
Outpatient program	1.4	1.7	-0.3	1.4	-0.4	-22.1
Other	1.6	1.4	0.1	1.5	0.2	15.6
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

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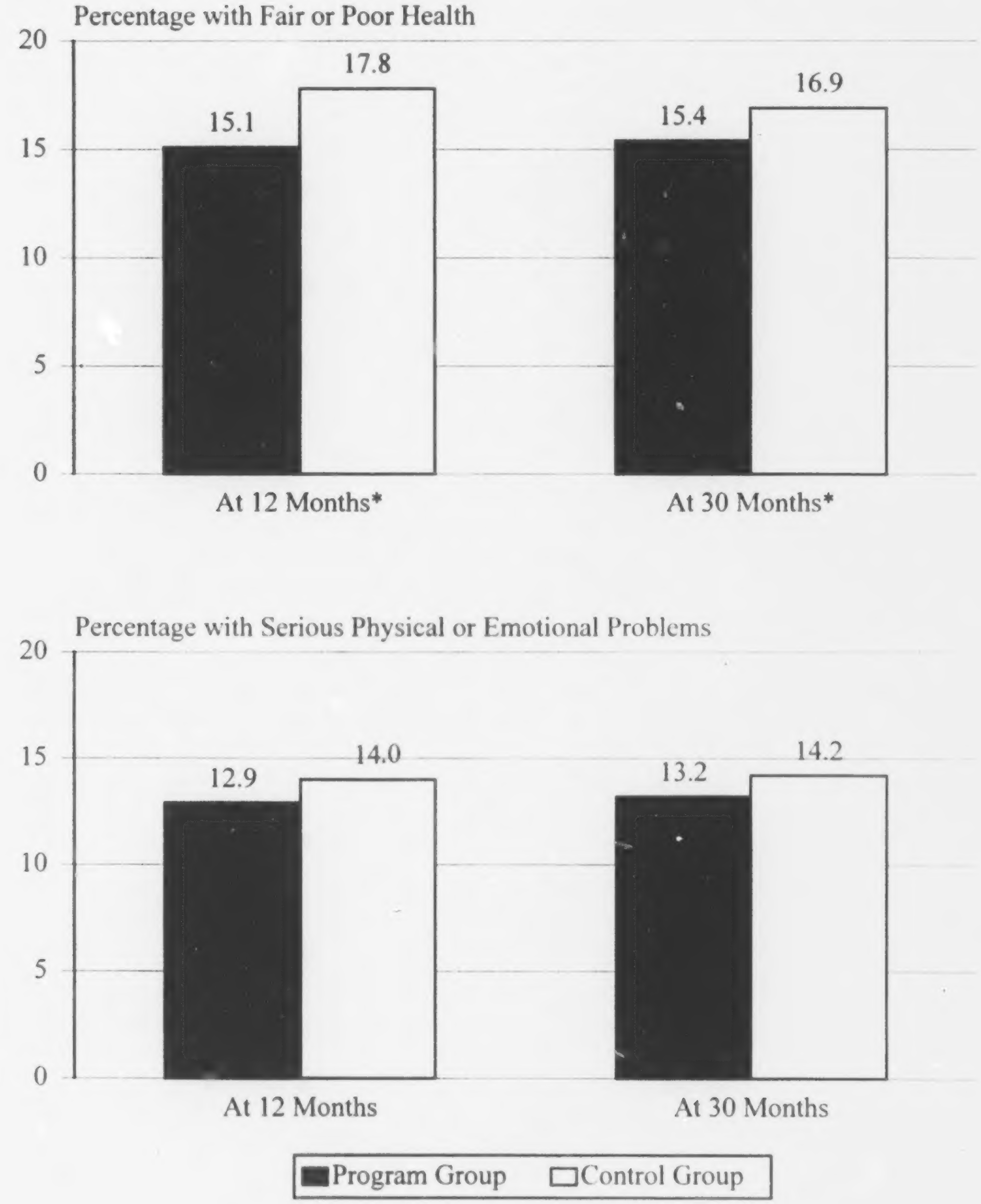
FIGURE VII.13

HEALTH STATUS AT THE 12- AND 30-MONTH INTERVIEWS



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

TABLE VII.13

IMPACTS ON HEALTH STATUS

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Health Status at 12 Months (Percentages)						
Excellent	41.0	38.0	3.1***[d]	41.5	4.2***[d]	11.4
Good	43.9	44.3	-0.4	43.7	-0.6	-1.3
Fair	13.5	15.8	-2.3	13.2	-3.2	-19.5
Poor	1.6	2.0	-0.3	1.6	-0.5	-22.4
Fair or poor	15.1	17.8	-2.7***[d]	14.8	-3.7***[d]	-19.9
Health Status at 30 Months (Percentages)						
Excellent	39.4	37.0	2.4**	40.1	3.3**	9.0
Good	45.2	46.1	-0.9	45.0	-1.2	-2.6
Fair	13.8	15.1	-1.3	13.4	-1.8	-11.6
Poor	1.6	1.8	-0.2	1.5	-0.3	-18.0
Fair or poor	15.4	16.9	-1.5**	14.9	-2.1**	-12.3
Percentage with Serious Physical or Emotional Problems That Limited the Amount of Work That Could be Done or Other Regular Daily Activities						
At 12 months	12.9	14.0	-1.1	12.8	-1.4	-10.1
At 30 months	13.2	14.2	-0.9	13.1	-1.3	-8.8
Type of Serious Health Problem at 30 Months (Percentages)[e]						
Physical injuries	20.5	19.3	1.2**[d]	21.0	1.6**	8.4
Psychological problems	20.9	25.1	-4.2	19.5	-5.8	-22.7
Muscle and extremity problems	22.2	20.6	1.6	22.8	2.1	10.4
Respiratory problems	7.3	8.4	-1.0	7.3	-1.4	-16.2
Reproductive problems	13.2	9.4	3.8	13.3	5.2	63.5
Organ problems	7.3	10.3	-3.1	7.5	-4.2	-36.0
Miscellaneous problems	8.7	6.9	1.8	8.7	2.4	39.1
Average Number of Weeks Since Random Assignment Had Serious Health Problem at 30 Months[e]	37.3	38.2	-0.9	36.3	-1.2	-3.2
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

TABLE VII.13 *(continued)*

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[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] The significance levels pertain to statistical tests for differences in the distribution of the outcome measure for program and control group members.

[e] Figures pertain to those with a serious physical or emotional problem at 30 months.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

contributed to modest improvements in participants' perceived health status during both the in-program and postprogram periods.

6. Impacts for Subgroups

The pattern of self-reported rates of alcohol and drug use across subgroups closely follows the pattern of criminal justice system involvement across subgroups (Tables G.2 and G.3). The percentage of control group members who reported using drugs was higher for those 16 and 17 than for the older groups (it was about 12 percent for those 16 and 17, 8 percent for those 18 and 19, and 5 percent for those 20 to 24).[16] Similarly, among the control group, males had higher reported rates of drug use than females (11 percent, as compared to 6 percent), residential designees had somewhat higher rates than nonresidential designees, and rates were higher for those without a high school credential at baseline than their counterparts. In addition, those with previous arrests were more likely to report using drugs than those without arrests (13 percent, compared to 7.5 percent). Self-reports of drug use were similar by race and for those who applied before and after the ZT policies took effect. Self-reports of drug use did not decrease appreciably over time.

Control group members were more likely than program group members to report having used alcohol at 12 months for most subgroups. However, there is some evidence that impacts were larger for females, for those 20 to 24, and for those with a high school credential at baseline. For nearly all subgroups, impacts on alcohol consumption at 30 months were not statistically significant.

We find no consistent Job Corps impacts on the use of illegal drugs for any subgroup at either 12 or 30 months. Very few of the impacts were negative, and even fewer are statistically significant.

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[16] Alcohol use, however, increased with age.

Thus, it appears that Job Corps had little effect on reducing self-reports of drug use for broad groups of students.

Only a minority of control group members in each subgroup (ranging from about 15 to 20 percent) reported being in fair or poor health at either 12 or 30 months. Job Corps had beneficial effects on health for most subgroups, although impacts were most pronounced for the oldest youths and for males.

D. FAMILY FORMATION

For most young people, forming intimate, long-term relationships with other adults, having children, and providing for the physical and emotional needs of those children are important aspects of the transition to adulthood. In general, adults hope that young people will defer having children until they have completed their education, can provide for the physical and emotional needs of their children, and have the emotional maturity to cope with work and family life. Adults also hope young people will marry before they have children. Indeed, being a child in a single-parent family is one of the strongest predictors of child poverty. In this section, we present findings on the extent to which participation in Job Corps led youths to defer having children, to marry, and to take an active role in caring for the children that they have.

We anticipate that Job Corps participation could have affected family formation decisions through several pathways. First, instilling responsibility is a major goal of the program's highly structured, intensive format. Second, the curriculum includes components that address parenting and family life directly. Third, new options and opportunities, which result from additional education and training and better employment prospects, may exert indirect effects on participants' decisions to form relationships, have children, and take care of their children.

This section presents impact findings on three groups of outcomes:

1. ***Fertility,*** including the likelihood of (1) bearing or fathering children during the 30 months after random assignment; (2) having children out of wedlock; and (3) for females, being pregnant at the time of the 30-month interview.

2. ***Custodial Responsibility and Parental Support,*** including the percentage of parents who lived with all their children at the 30-month interview and, for males, the amount of time spent with their noncustodial children and the types of support provided.

3. ***Living Arrangements and Marital Status,*** including the composition of the sample member's household at the 30-month interview, household size, and whether the sample member was married, living with a partner, never married, or separated, divorced, or widowed at that time.

All these measures were constructed using information collected in the 30-month follow-up interview.

In contrast to other sections of this report, we present findings for males, females without children at random assignment, and females with children at random assignment, along with the overall findings. Substantial differences in roles and responsibilities across these gender groups lead us to take this approach. The section concludes with a brief discussion of impact findings for other subgroups.

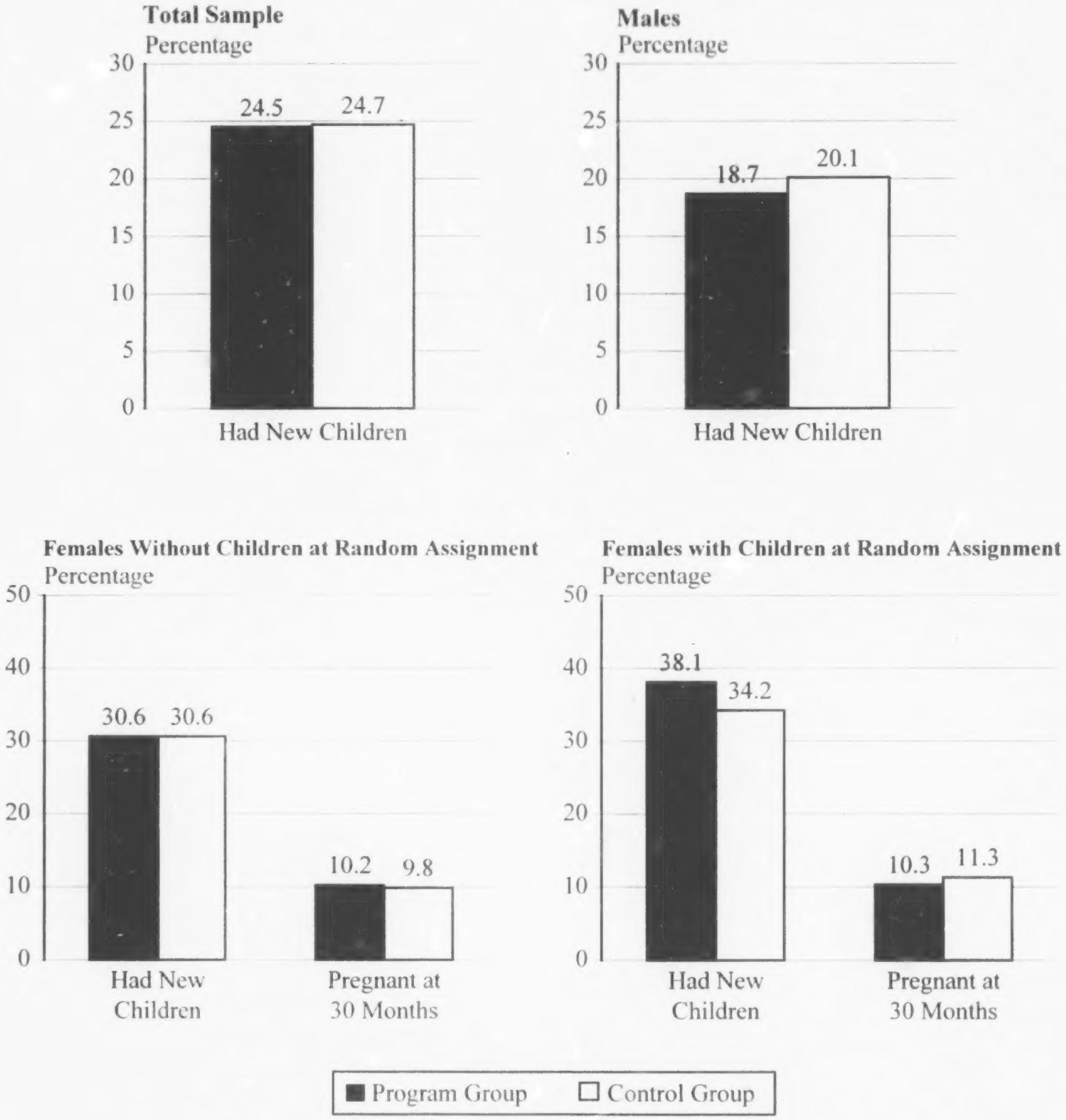
As we will discuss, we find no impacts of Job Corps on these social outcome measures.

1. Impacts on Fertility

Job Corps had little or no effect on births during the 30 months after random assignment for the full sample and for the three gender subgroups (Figure VII.14 and Table VII.14). The birth rate was about 25 percent for all program and control group members: about 19 percent for males, 31 percent for females without children at random assignment, and 34 to 38 percent for females with children at random assignment. About 90 percent of those with new children had only one child. More than

FIGURE VII.14

FERTILITY DURING THE 30 MONTHS AFTER RANDOM ASSIGNMENT FOR MALES AND FOR FEMALES WITH AND WITHOUT CHILDREN



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

TABLE VII.14

IMPACTS ON FERTILITY FOR MALES AND FOR FEMALES WITH AND WITHOUT CHILDREN AT RANDOM ASSIGNMENT

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Total Sample						
Percentage Had Children During the 30 Months After Random Assignment	24.5	24.7	-0.3	22.9	-0.4	-1.5
Number of Children						
0	82.0	81.8	0.1*	83.3	0.2*	0.2
1	16.6	16.1	0.4	15.5	0.6	4.1
2 or more	1.5	2.0	-0.6	1.2	-0.8	-39.5
(Average)	0.3	0.3	0.0	0.3	0.0	-4.8
Percentage Had Children Out of Wedlock	20.9	20.7	0.1	19.8	0.2	1.0
Percentage of Females Pregnant at the 30-Month Interview	10.2	10.2	0.0	10.3	0.0	0.3
Males						
Percentage Had Children During the 30 Months After Random Assignment	18.7	20.1	-1.4	17.3	-1.9	-10.0
Number of Children						
0	91.4	90.1	1.3	92.2	1.7	1.9
1	7.8	9.0	-1.1	7.2	-1.5	-17.4
2 or more	0.8	0.9	-0.2	0.5	-0.2	-29.7
(Average)	0.2	0.2	0.0*	0.2	0.0*	-11.5
Percentage Had Children Out of Wedlock	15.6	16.5	-0.9	14.8	-1.2	-7.4
Females Without Children at Random Assignment						
Percentage Had Children During the 30 Months After Random Assignment	30.6	30.6	0.0	29.7	0.0	0.0
Number of Children						
0	70.3	70.4	-0.1**d	71.1	-0.1**d	-0.2
1	28.0	25.8	2.2	27.2	3.0	12.4
2 or more	1.7	3.8	-2.1	1.7	-2.9	-62.2
(Average)	0.3	0.3	0.0	0.3	0.0	-8.3
Percentage Had Children Out of Wedlock	27.1	27.5	-0.3	26.5	-0.5	-1.8
Percentage Pregnant at the 30-Month Interview	10.2	9.8	0.3	10.4	0.5	4.7

TABLE VII.14 *(continued)*

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Females with Children at Random Assignment						
Percentage Had Children During the 30 Months After Random Assignment	38.1	34.2	3.9	36.6	6.1	20.0
Number of Children						
0	63.3	67.0	-3.7	64.6	-5.8	-8.2
1	32.5	29.4	3.1	31.6	4.9	18.3
2 or more	4.2	3.6	0.6	3.8	0.9	31.5
(Average)	0.4	0.4	0.1	0.4	0.1	24.3
Percentage Had Children Out of Wedlock	31.5	26.0	5.5**	30.4	8.7**	40.1
Percentage Pregnant at the 30-Month Interview	10.3	11.3	-1.0	9.9	-1.6	-14.3
Total Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] The significance levels pertain to statistical tests for differences in the distribution of the outcome measure for program and control group members.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

80 percent of births were out of wedlock for each gender group. About 10 percent of females in the control and program groups were pregnant at the 30-month interview. Most of the small differences between the program and control groups are not statistically significant.

2. Impacts on Custodial Responsibility

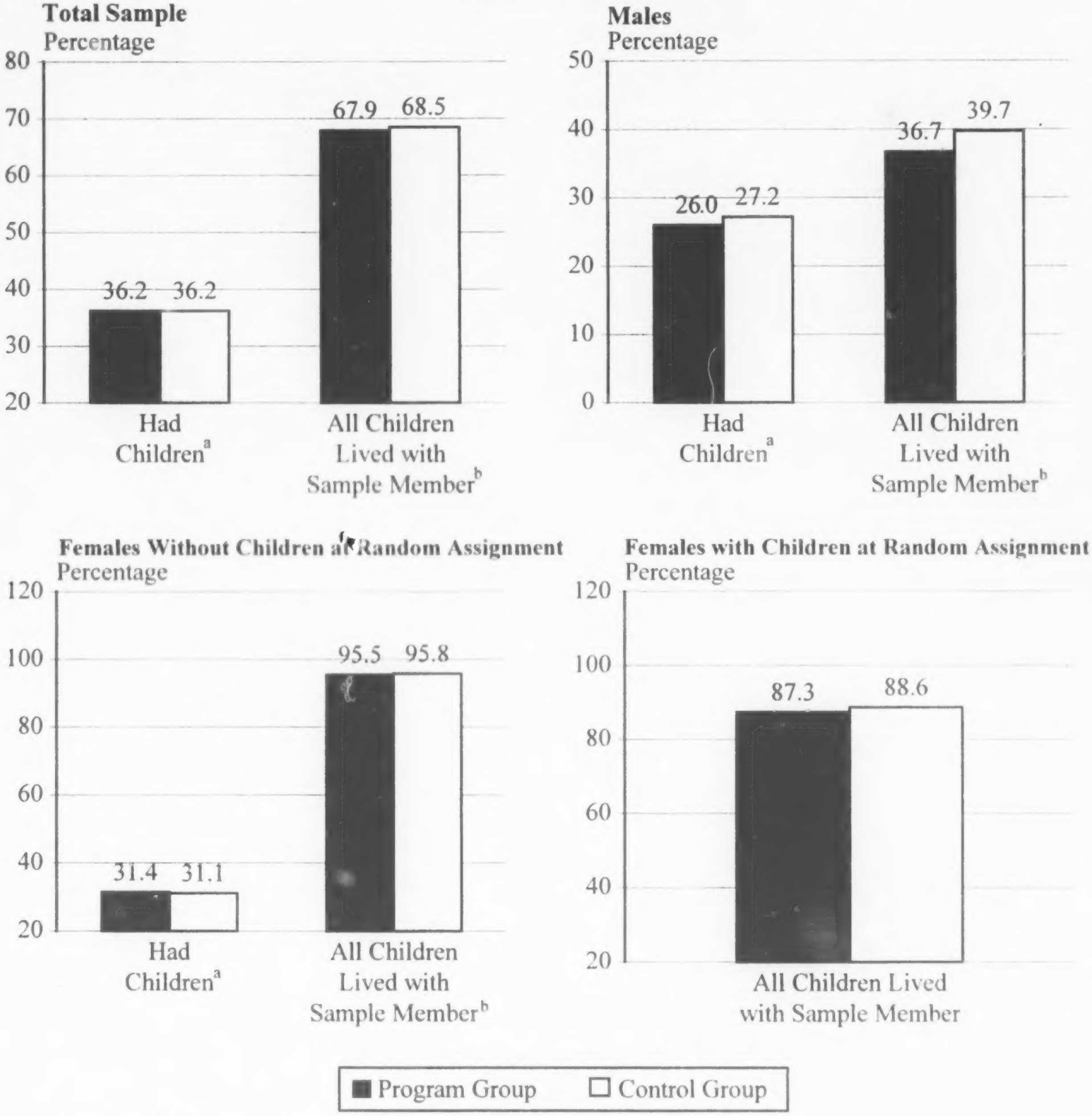
An important dimension of parental responsibility is providing support to one's children. To assess the extent to which Job Corps influenced this support, we estimated impacts on the percentage of parents who lived with their children, and the types of support that were provided by males who did not live with their children (Figure VII.15 and Table VII.15).

We find large gender differences in the percentage of parents who lived with their children, but no impacts on this custodial measure. Overall, about 36 percent of youths in both research groups had children (including children born before and after random assignment and children who lived with the sample member and those who did not). Less than 40 percent of male parents lived with all their children. In contrast, nearly all females lived with their children. For each gender group, the percentage who lived with all their children was nearly identical for the program and control groups.

Because nearly all females lived with their children, we examined impacts on measures of custodial responsibility only for males. There were, however, no program impacts on these custodial responsibility measures. Among male parents who did not live with all their children, we find that most did not spend a substantial amount of time with their absent children, but most reported that they provided some support. Less than half in each research group said they had often spent time with their absent children in the prior three months. Almost a quarter reported that they never spent time with them. About 80 percent, however, reported that they provided some type of support; about three-fourths provided money (about 50 percent on a regular basis), and the percentages who

FIGURE VII.15

THE PRESENCE OF CHILDREN AND CUSTODIAL RESPONSIBILITY AT 30 MONTHS FOR MALES AND FOR FEMALES WITH AND WITHOUT CHILDREN AT RANDOM ASSIGNMENT



Source: Baseline, 12-month, and 30-month follow-up interviews.

*Difference between the mean outcome for program and control group members is statistically significant at the 5 percent level. This difference is the estimated impact per eligible applicant.

[a] Includes children born before and after random assignment.

[b] Estimates pertain to parents only.

TABLE VII.15

IMPACTS ON CUSTODIAL RESPONSIBILITY AT 30 MONTHS FOR MALES

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Percentage Had Children at 30-Month Interview[d]	26.0	27.2	-1.3	23.9	-1.7	-6.5
Percentage of Sample Members Who Lived with All Their Children[e]	36.7	39.7	-3.0	36.0	-4.0	-10.1
Percentage of Absent Children Who Lived with Their Other Parent[f]	94.0	93.0	1.0	94.6	1.3	1.4
Time Spent with Children in the Past Three Months (Percentages)[f]						
Often	47.2	46.0	1.2	47.5	1.6	3.5
Sometimes	18.5	20.7	-2.2	17.5	-2.9	-14.2
Rarely	10.1	9.9	0.2	11.3	0.3	2.4
Never	24.2	23.4	0.8	23.7	1.0	4.6
Percentage Currently Provided Type of Support[f]						
Any	79.9	81.9	-2.0	80.9	-2.7	-3.2
Food	61.7	62.6	-0.9	62.3	-1.2	-1.9
Child care items	58.6	61.6	-2.9	58.6	-3.9	-6.2
Household items	50.1	48.1	2.0	49.8	2.6	5.5
Clothing	70.7	70.1	0.5	70.1	0.7	1.0
Toys	69.8	69.2	0.6	69.8	0.8	1.2
Medicine	54.3	53.9	0.3	54.9	0.5	0.8
Babysitting	43.7	45.7	-2.1	43.6	-2.8	-6.0
Money	74.4	75.3	-0.8	73.9	-1.1	-1.5
Other	9.4	8.4	1.0	8.7	1.3	17.1
Percentage Gave Money[f]						
In the past month	65.2	63.6	1.5	63.8	2.0	3.3
Occasionally	19.9	26.2	-6.3**	19.0	-8.4**	-30.6
On a regular basis	54.5	49.0	5.5*	54.9	7.3*	15.2
Average Amount of Money Gave in the Past Month (in Dollars)[f]	145.5	126.2	19.3	144.6	25.7	21.6
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

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TABLE VII.15 *(continued)*

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[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] Includes children born before and after random assignment.

[e] Estimates pertain to parents only.

[f] Estimates pertain to parents who did not live with all their children.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

provided food, child care items, household items, clothing, toys, medicine, and babysitting ranged from about 40 to 70 percent.

3. Impacts on Living Arrangements and Marriage

We find no impacts on living arrangements at the 30-month interview, for the full sample and for the three gender subgroups, although we find some differences in the living arrangements of females with children and the other youths (Table VII.16). In total, about 43 percent of the youths were living with their parents. Not surprisingly, this figure was lower than the 65 percent figure at baseline (Schochet 1998a), because some sample members moved away from home as they became older. The percentage living with their parents was similar for males and females without children at baseline (46 and 42 percent, respectively) but was lower for females with children (26 percent). About 20 percent of each gender group lived with another adult relative, and the likelihood of living with adult nonrelatives ranged from about 15 to 20 percent.

Overall, about 14 percent were living with no other adults, which is nearly triple the baseline figure (5 percent). However, the percentage living alone differed substantially across the gender groups. Only about 9 percent of males were living with no other adults, compared to 15 percent of females without children at baseline and nearly 40 percent of females with children at baseline. Consistent with this pattern, about 65 percent of females with children at baseline reported being the head of the household, compared to about 40 percent of those in the other groups.

It appears that Job Corps did not increase the likelihood that females with children at baseline lived with other supportive adults.

TABLE VII.16

IMPACTS ON LIVING ARRANGEMENTS AT THE 30-MONTH INTERVIEW FOR MALES AND FOR FEMALES WITH AND WITHOUT CHILDREN AT RANDOM ASSIGNMENT

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Total Sample						
Household Membership						
Living with either parent	42.2	43.9	-1.7	44.0	-2.3	-4.9
Living with another adult relative	21.1	21.4	-0.3	20.2	-0.4	-2.0
Living with adult nonrelative	17.1	16.2	0.9	17.4	1.2	7.3
Living with no other adults	14.3	13.3	0.9	13.5	1.3	10.2
In Job Corps, incarcerated, institutionalized, or homeless	5.4	5.2	0.2	4.9	0.3	5.5
Sample Member Is Head of Household	40.2	38.1	2.0**	39.7	2.8**	7.6
Number in Household						
1	6.8	6.4	0.4	6.9	0.5	8.3
2	19.4	18.1	1.2	20.0	1.7	9.3
3	25.6	25.8	-0.1	24.8	-0.2	-0.8
4	19.9	20.6	-0.7	19.9	-1.0	-4.8
5 or more	28.3	29.1	-0.7	28.4	-1.0	-3.4
(Average)	3.8	3.8	-0.1	3.7	-0.1	-2.1
Males						
Household Membership						
Living with either parent	45.9	47.6	-1.7	47.6	-2.3	-4.6
Living with another adult relative	21.3	21.3	-0.1	20.2	-0.1	-0.5
Living with adult nonrelative	16.3	15.5	0.7	16.2	0.9	6.2
Living with no other adults	8.6	7.5	1.1	8.9	1.4	19.1
In Job Corps, incarcerated, institutionalized, or homeless	8.0	8.0	0.0	7.1	0.0	0.0
Sample Member Is Head of Household	37.3	36.0	1.3	38.2	1.7	4.8
Number in Household						
1	8.0	6.9	1.1	8.3	1.4	20.8
2	18.1	17.3	0.8	18.5	1.1	6.1
3	26.0	25.7	0.3	25.0	0.4	1.8
4	20.2	21.0	-0.8	20.4	-1.1	-4.9
5 or more	27.8	29.2	-1.4	27.8	-1.9	-6.4
(Average)	3.7	3.8	-0.1*	3.7	-0.1*	-2.8
Females Without Children at Random Assignment						
Household Membership						
Living with either parent	41.5	43.8	-2.3	42.5	-3.1	-6.9
Living with another adult relative	21.4	21.4	0.0	20.3	0.0	0.1
Living with adult nonrelative	20.0	18.6	1.3	21.1	1.9	9.7

TABLE VII.16 *(continued)*

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Living with no other adults	15.2	14.7	0.5	14.2	0.6	4.7
In Job Corps, incarcerated, institutionalized, or homeless	1.9	1.4	0.4	1.9	0.6	48.7
Sample Member Is Head of Household	35.4	31.9	3.5**	33.7	4.8**	16.7
Number in Household						
1	7.1	7.8	-0.7	6.4	-0.9	-12.5
2	23.2	21.6	1.7	23.9	2.3	10.7
3	24.6	24.6	-0.1	24.1	-0.1	-0.3
4	17.1	18.3	-1.2	17.3	-1.7	-8.9
5 or more	28.0	27.7	0.3	28.3	0.4	1.4
(Average)	3.7	3.7	0.0	3.7	-0.1	-1.4
Females with Children at Random Assignment						
Household Membership						
Living with either parent	25.6	25.6	0.0	27.1	0.0	0.2
Living with another adult relative	19.2	21.5	-2.4	19.8	-3.7	-15.8
Living with adult nonrelative	14.2	13.0	1.2	14.0	1.9	15.4
Living with no other adults	39.9	39.5	0.4	38.3	0.7	1.7
In Job Corps, incarcerated, institutionalized, or homeless	1.1	0.3	0.7	0.9	1.1	-410.4
Sample Member Is Head of Household	66.0	64.3	1.7	64.9	2.7	4.3
Number in Household						
1	1.0	0.9	0.1	0.7	0.1	14.2
2	15.8	13.7	2.1	17.1	3.3	23.9
3	26.5	28.7	-2.2	25.6	-3.5	-12.0
4	25.2	24.4	0.8	24.6	1.3	5.5
5 or more	31.5	32.2	-0.8	32.0	-1.2	-3.6
(Average)	4.1	4.1	0.0	4.1	-0.1	-1.6
Total Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

We find no impacts for males or females with children at random assignment on the likelihood of living with a partner (either married or unmarried) at the 30-month interview (Table VII.17). In contrast, for females with no children at random assignment, we find a small impact on marital status: more of the program group were married and fewer were never married, living together unmarried or divorced, separated, or widowed.

Interestingly, about one-fourth of each demographic group was married or living with a partner. As one would expect, this figure is higher than it was at the baseline interview.

4. Impacts for Other Subgroups

Family formation outcomes among the control group differed somewhat by age but were generally similar for other youth subgroups (Table H.1). For example, the older youths were more likely than the younger youths to have lived with a partner, but were also more likely to have lived with no other adults. Surprisingly, the fertility rate was similar by age. The control group mean outcomes were similar by residential designation status, educational level, arrest history, race and ethnicity, and application date.

We find few impacts on key family formation outcomes across the subgroups. The percentage of those who had children, who lived with all their children, who lived with no adult, and who lived with a partner were similar for program and control group members for most subgroups. Tests of hypotheses that impacts were the same across subgroups were rarely rejected. Thus, it appears that Job Corps had little influence on key family formation measures during the 30 months after random assignment for diverse groups of students.

TABLE VII.17

IMPACTS ON MARITAL STATUS AT 30 MONTHS FOR MALES AND FOR FEMALES WITH AND WITHOUT CHILDREN AT RANDOM ASSIGNMENT

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Total Sample						
Never Married, Not Living Together	72.6	73.3	-0.7	73.9	-0.9	-1.2
Married	10.3	9.3	1.0	9.6	1.4	16.5
Living Together	14.2	14.3	-0.1	14.0	-0.2	-1.4
Separated, Divorced, or Widowed	2.8	3.0	-0.2	2.4	-0.2	-8.8
Males						
Never Married, Not Living Together	75.5	75.7	-0.3	76.9	-0.4	-0.5
Married	8.8	8.9	-0.1	8.0	-0.1	-1.3
Living Together	13.4	13.6	-0.2	13.1	-0.3	-2.0
Separated, Divorced, or Widowed	2.3	1.7	0.6	2.0	0.7	58.3
Females Without Children at Random Assignment						
Never Married, Not Living Together	70.0	72.1	-2.1***[d]	70.5	-2.9***[d]	-3.9
Married	11.7	8.1	3.6	11.1	5.0	82.9
Living Together	16.2	16.6	-0.4	16.5	-0.5	-2.9
Separated, Divorced, or Widowed	2.1	3.3	-1.2	1.9	-1.7	-47.2
Females with Children at Random Assignment						
Never Married, Not Living Together	65.2	64.7	0.5	66.5	0.8	1.2
Married	14.3	14.6	-0.3	14.7	-0.4	-2.6
Living Together	13.1	11.9	1.1	12.5	1.8	16.4
Separated, Divorced, or Widowed	7.4	8.8	-1.4	6.3	-2.1	-25.2
Total Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

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TABLE VII.17 *(continued)*

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[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] The significance levels pertain to statistical tests for differences in the distribution of the outcome measure for program and control group members.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

E. MOBILITY

Youths served by Job Corps face many barriers to achieving self-sufficiency. Some of these barriers relate to family circumstances--for example, difficult or unstable living arrangements or lack of support from family members. Also, many youths live in neighborhoods where poverty rates are high and job opportunities are scarce. A core element of the philosophy motivating Job Corps's residential component is that, for some, the home environment creates insurmountable barriers to succeeding in training and that removal from the home is necessary in order for the youth to take advantage of training. Indeed, living in a debilitating environment that precludes participation in other education and training programs is a key criterion for Job Corps eligibility.

This element of Job Corps raises the question of whether participation promotes mobility of students. Participation in Job Corps could affect the types of areas where students live after they leave the program because of job placement and location assistance, and because higher earnings could make some neighborhoods more affordable. However, many Job Corps students are believed to return to their home neighborhoods after leaving the program, and the earnings gains that we observed at the 30-month point were small. Thus, impacts on mobility outcomes during the 30-month follow-up period are likely to be quite small also.

We address two specific questions:

1. Do students return to the same areas that they lived in at the time of application?
2. Do students move to areas that offer opportunities different from those in the areas they came from?

To address these questions, we examined the following measures: (1) the distance in miles between the zip code of residence at application to Job Corps and the zip code of the 30-month interview, (2) whether the sample member lived in the same state at application and at the 30-month interview, and (3) the characteristics of the counties of residence at application and at 30 months (using data from the 1998 Area Resource File [ARF]).[17] Most county measures in ARF that were used in the analysis were from the 1990 Census, so they pertain to the period before the 30-month interview date for all sample members (because the earliest interview was conducted in mid-1997). Furthermore, the measures are broad because they are at the county level. However, the county measures provide an indication of the types of areas in which sample members lived.

We find that most sample members returned to the area they lived in before applying for Job Corps and that impacts on mobility were small (Table VII.18). About half of both research groups lived in the same zip code at 30 months as they did at application to Job Corps, and nearly three-quarters lived within 10 miles; the median distance was about 1.6 miles (not shown). Only about 17 percent lived more than 50 miles away. Furthermore, about 88 percent lived within the same state. Surprisingly, measures of mobility were similar for males and females.

A small increase in mobility due to Job Corps is evident from the fact that the difference between the distribution of distances is statistically significant for the total sample (though not for the gender subgroups). Slightly more of the program group lived more than 10 miles from where they lived at application (71.8 percent, compared to 74.3 percent of the control group), and slightly fewer lived more than 50 miles away (16.4 percent, compared to 17.8 percent). In conjunction with the finding that members of the program group were slightly more likely to identify themselves as the head of household and slightly less likely to live with their parents, this finding on mobility suggests that participation in Job Corps had very modest effects on the likelihood a youth was living independently two and one half years after application to Job Corps.

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[17] These data are made available by the Bureau of Health Professions at the Department of Health and Human Services.

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TABLE VII.18

IMPACTS ON MOBILITY FOR MALES AND FOR FEMALES WITH AND WITHOUT CHILDREN AT RANDOM ASSIGNMENT

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Total Sample						
Distance in Miles Between Zip Codes of Residence at Application to Job Corps and at the 30-Month Interview (Percentages)						
0	47.0	47.8	-0.8**[d]	46.6	-1.1**[d]	-2.2
1 to 10	24.8	26.5	-1.7	24.2	-2.3	-8.8
10 to 50	10.4	9.3	1.1	10.3	1.5	16.6
50 to 250	8.1	6.9	1.3	8.8	1.7	24.5
250 or further	9.7	9.5	0.2	10.2	0.2	2.1
(Average)	97.5	92.6	4.9	102.7	6.7	7.0
Lived in the Same State at Application to Job Corps and the 30-Month Interview	87.5	87.9	-0.4	86.8	-0.6	-0.7
Males						
Distance in Miles Between Zip Codes of Residence at Application to Job Corps and at the 30-Month Interview (Percentages)						
0	49.2	49.9	-0.7	48.8	-1.0	-1.9
1 to 10	21.6	23.5	-1.8	21.2	-2.4	-10.3
10 to 50	10.5	8.9	1.6	10.0	2.1	26.2
50 to 250	8.5	7.8	0.7	9.5	1.0	11.2
250 or further	10.2	9.9	0.3	10.5	0.4	3.6
(Average)	105.9	96.7	9.2	110.9	12.3	12.5
Lived in the Same State at Application to Job Corps and at the 30-Month Interview	86.7	87.1	-0.4	86.1	-0.5	-0.6
Females Without Children at Random Assignment						
Distance in Miles Between Zip Codes of Residence at Application to Job Corps and at the 30-Month Interview (Percentages)						
0	43.9	45.7	-1.9	43.2	-2.6	-5.6
1 to 10	27.1	28.0	-1.0	26.8	-1.3	-4.8
10 to 50	11.0	10.9	0.1	11.3	0.1	0.6
50 to 250	8.3	5.6	2.8	8.4	3.8	83.8
250 or further	9.8	9.7	0.0	10.4	0.0	0.2
(Average)	88.6	97.5	-8.9	93.4	-12.4	-11.7
Lived in the Same State at Application to Job Corps and at the 30-Month Interview	87.5	89.0	-1.5	87.0	-2.1	-2.4

TABLE VII.18 *(continued)*

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Females with Children at Random Assignment						
Distance in Miles Between Zip Codes of Residence at Application to Job Corps and at the 30-Month Interview (Percentages)						
0	44.1	42.5	1.7	43.6	2.6	6.4
1 to 10	34.6	37.6	-3.0	34.2	-4.6	-12.0
10 to 50	8.5	7.8	0.7	8.8	1.1	14.5
50 to 250	5.9	5.4	0.5	6.0	0.8	14.9
250 or further	6.8	6.7	0.1	7.4	0.1	1.8
(Average)	75.6	58.3	17.2	78.5	27.1	52.7
Lived in the Same State at Application to Job Corps and at the 30-Month Interview	91.4	89.8	1.6	90.5	2.6	2.9
Total Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] The significance levels pertain to statistical tests for differences in the distribution of the outcome measure for program and control group members.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

Table VII.19 displays selected characteristics of the county in which a typical sample member resided at program application and at 30 months. (Data for the 30-month point are shown by research status.) As a frame of reference, the table also shows county characteristics for the typical 20- to 24-year-old nationally.[18]

Several interesting results emerge from the table. First, and not surprisingly, Job Corps students typically come from more disadvantaged areas than the typical youth nationally. The typical Job Corps student comes from a county with higher poverty rates, lower median incomes, lower educational levels, higher unemployment rates, and lower housing values than the typical youth nationally. Second, the characteristics of the counties that sample members lived in were similar at program application and at 30 months, which is consistent with our finding that many participants lived in the same areas at both points. Finally, we find no differences in the 30-month county characteristics for program and control group members (which is consistent with our finding of small impacts on mobility).

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[18] Our sample members were about 19 to 27 years old at the 30-month interview. However, the ARF does not contain population information for this age group, which was needed to construct weights to calculate the national figures. Thus, we used the available 20- to 24-year figures instead.

TABLE VII.19

CHARACTERISTICS OF THE COUNTIES OF RESIDENCE AT APPLICATION TO JOB CORPS AND THE 30-MONTH INTERVIEW

		At the 30-Month Interview			
County Characteristic	At Application to Job Corps	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	National Population of Those 20 to 24
Percentage of Persons with Incomes Below the Poverty Line in 1989	16.2	15.9	15.9	-0.1	13.3
Percentage of Families with Incomes Below the Poverty Line in 1989	12.8	12.4	12.5	-0.1	10.1
Median Family Income in 1989 (in Dollars)	33,116	33,352	33,519	-167	36,395
Percentage of Households with Female Heads in 1990	19.4	19.2	19.3	-0.1	17.1
Percentage of Persons 25 or Older in 1990 Who Did Not Complete High School	35.3	35.1	35.0	0.1	32.6
Percentage of Persons 25 or Older in 1990 Who Completed Four Years of College	19.3	19.4	19.5	-0.1	21.0
Percentage of the Population in Jail or in a Juvenile Home in 1990	0.5	0.5	0.5	0.0	0.5
Percentage of the Population in Urban Areas in 1990	77.3	77.2	77.8	-0.7	77.3
Median Home Value in 1990 (in Dollars)	86,920	85,535	88,250	-2,715**	103,497
Unemployment Rate in 1996	6.2	6.0	6.1	-0.1	5.5
Sample Size	**11,787**	**7,311**	**4,476**	**11,787**	

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

VIII. SUMMARY AND CONCLUDING OBSERVATIONS

This report has provided extensive documentation on the impacts of Job Corps on participants' employment and related outcomes during the first two and one half years after youths had applied for and been found eligible for Job Corps. Job Corps is a major investment both for the youths who enroll and for the federal government, which pays for the program. We have emphasized throughout the report that the findings presented here must be considered short-term. Given the size of the investment, two and a half years is not sufficient time to draw conclusions about whether it is a worthwhile investment.

In this chapter, we bring together and summarize the main findings to date on the impacts of Job Corps, and we offer some concluding remarks that place these short-term findings in a broader context.

A. SUMMARY

The key findings on the short-term impacts of Job Corps can be summarized as follows.

Job Corps provided extensive education, training and other services to the program group. Follow-up interviews show that 73 percent of the program group enrolled in Job Corps and that 72 percent of enrollees (and just over half the full program group) participated in Job Corps for at least 3 months. The average period of participation per enrollee was eight months. Enrollees also participated extensively in the core Job Corps activities.

Job Corps substantially increased the education and training services received by program group participants and improved their educational attainment. Job Corps significantly increased the percentage of youth who attended an education or training program, as well as the amount and intensity of their education and training. It also provided instruction that was more focused on vocational training than the training available elsewhere. On average, Job Corps increased the amount of academic classroom instruction and vocational training that participants received (both in and out of Job Corps) by about 1,000 hours, which is approximately the number of hours in a regular 10-month school year.

Job Corps substantially increased the receipt of certificates that it emphasizes: GED and vocational certificates. Among those without a high school credential at random assignment, about 35 percent of program group members (and 40 percent of program group participants) obtained a GED during the 30-month period, compared to only 17 percent of control group members (an impact of 18 percentage points per eligible applicant). Similarly, about 28 percent of program group members (and 35 percent of Job Corps participants) reported receiving a vocational certificate, compared to about 8 percent of control group members (an impact of 20 percentage points).

The program, however, had no effect on college attendance or completion.

Job Corps generated positive employment and earnings impacts by the beginning of the third year after random assignment. In the last quarter of the 30-month follow-up period, the gain in average weekly earnings per participant was $18, or 11 percent. These earnings gains late in the period were due to a combination of greater hours of work and higher earnings per hour.

Because of the substantial time participants invested in their education and training, their earnings over the entire 30-month period were lower than they would otherwise have been. It took about two years from random assignment for the earnings of the program group to reach those of the control group. Over the entire 30-month period, average earnings per participant were about $1,300 less than they would have been had the youth not participated in Job Corps.

Positive impacts near the end of the 30-month follow-up period were found broadly across most subgroups of students. However, the program provided greater gains, at least in the short term, for very young students, females with children, and older youths who did not possess a high school credential at enrollment--all groups at special risk of poor employment and earnings outcomes.

For those assigned to the residential component, short-term postprogram earnings and employment impacts were positive overall. Impacts were similar for males, females with children, and females without children. Thus, the residential program component was effective in the short term for broad groups of students.

For those assigned to the nonresidential component, short-term earnings and employment impacts were substantial among females with children, but no impacts were evident for females without children or for males.

Job Corps had small beneficial impacts on the receipt of public assistance. Overall, program group members reported receiving about $300 less in benefits (across several public assistance programs) than control group members. However, impacts on the receipt of individual types of assistance were small and in many cases not statistically significant. For example, the typical program group member received AFDC/TANF benefits for just 0.2 months less than the typical control group member (3.5 months, compared to 3.7 months for the control group), and received food stamp benefits for just 0.4 months less (4.2 months, compared to 4.6 months).

Job Corps significantly reduced participants' involvement with the criminal justice system. The arrest rate was reduced by 22 percent (about 6 percentage points). Reductions in the arrest rates were largest during the first year after random assignment, when most program group enrollees were in Job Corps. However, arrest reductions were also statistically significant during the later months of the follow-up period, after most of the program group had left Job Corps. Furthermore, although the level of arrest rates differed substantially across subgroups, the impacts on arrest rates were very similar (and, in particular, by gender, age, and residential designation status).

Program group members were less likely to have arrest charges for all categories of crimes. However, reductions were slightly larger for less serious crimes (such as disorderly conduct and trespassing).

Job Corps participation also reduced convictions and incarcerations resulting from a conviction. Nearly 21 percent of control group members were ever convicted during the follow-up period, compared to 17 percent of program group members. Similarly, Job Corps participation reduced the percentage incarcerated for convictions by 3 percentage points (from 14 percent to 11 percent).

Job Corps had small positive impacts on self-assessed health status, but none on self-reported illegal drug use, family formation, or mobility. Job Corps had little effect on the self-reported use of tobacco, alcohol, and illegal drugs, for the full sample and for key subgroups. It also had little effect on time spent in drug treatment.

Job Corps significantly reduced the percentage of youth who rated their health as "poor" or "fair" at the time of the 12-month and 30-month interviews. At each interview, about 18 percent of the control group and 15 percent of the program group said their health was "poor" or "fair."

Job Corps had no effect on family formation. About 25 percent of those in both the program and control groups had a child during the follow-up period (32 percent of females and 19 percent of males), and about 85 percent of children were born out of wedlock. About a fourth of each group was living with a partner at the 30-month interview. Similar percentages of parents were living with all their children, and providing support for noncustodial children.

B. CONCLUDING OBSERVATIONS

Job Corps represented a large investment of time and effort by program group members who enrolled. Enrollees reported staying in the program for an average of eight months and received an average of about 1,000 hours of academic classroom instruction and vocational training. Because the youths spent a large amount of time in the program, they were not working and earning. Consequently, we cannot confidently draw conclusions about the postprogram impacts of Job Corps on key outcomes based on data for the two-and-one-half-year period. Even at the end of the 30-month follow-up period, we may not be observing the full effects of Job Corps. Thus, the results presented in this report must be interpreted with caution.

Job Corps provides a residential living program, health care, and a broad range of services designed to help youth who have not succeeded in school to become productive young adults. Many staff and observers of the program believe that the distinctive residential component of Job Corps is a key ingredient, both because the residential component is necessary for delivering effective academic and vocational instruction and because the experience of living in a community committed to learning has intrinsic benefits apart from the formal education and training that Job Corps provides.

Because of the comprehensive nature of Job Corps, it is not possible to determine the relative contributions of the different parts of the program to the beneficial short-term impacts that we find. We can, however, put the short-term postprogram earnings gains into perspective using the literature on the returns to schooling, and our findings that (1) youths who enroll in Job Corps receive the equivalent of nearly a full year of schooling that they would not have received if Job Corps were not available to them, and (2) the vast majority who leave school to go to Job Corps would have dropped out and not obtained a high school diploma had they not enrolled in the program.

Economists have long been concerned about the returns to schooling. They pose the question: how much difference does an additional year of schooling make in the lifetime earnings of an individual? The answers they have developed over the last two decades provide an important perspective on the study's short-term findings.

Studies of the average returns to a year of schooling consistently find that a year of schooling increases earnings over a worker's lifetime by 5 to 8 percent.[1] Measured in hours spent in academic classes and vocational training, Job Corps provides roughly the equivalent of a year of additional schooling per participant. In this context, the 11 percent earnings gains per participant observed near the end of the 30-month period are in line with what one would expect from an intensive education and training program that serves primarily school-aged youth. Observing whether these modest gains persist, increase, or decrease over a longer follow-up period will be critical for forming a judgment about whether Job Corps is a good investment for students and the public.

It is also noteworthy that no other studied education and training program for disadvantaged youth has produced statistically significant earnings and employment gains. For example, the National JTPA Study found no impacts over a 30-month period on the earnings of low-income out-of-school youths who participated in 15 selected JTPA Title II-A programs in the late 1980s (Orr et al. 1996).[2] As another example, the Jobstart demonstration, conducted in 13 local areas, provided education, training, and job placement services in a nonresidential setting to economically disadvantaged youths ages 17 to 21 who had dropped out of school. While the profile of earnings and earnings gains were similar over a three-year follow-up period to the gains reported here for Job

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[1] Card (1995) cites eight studies completed in the 1990s that find returns in this range. Kane and Rouse (1999) cite similar findings on the returns to community college.

[2] The study used a random assignment design where more than 5,500 youths between the ages of 16 and 21 were randomly assigned to a research status.

Corps, these gains were not statistically significant (Cave et al. 1993).[3] Thus, Job Corps is the only program that has produced statistically significant earnings gains in the short term.

The findings for 16- and 17-year-old youth are striking: (1) earnings gains per participant were nearly 20 percent by the end of the follow-up period, (2) the percentage earning a high school diploma or GED was up by 80 percent, and (3) arrest rates were reduced by 14 percent and rates of incarceration for a conviction were reduced by 26 percent. Indeed, the average total earnings of 16- and 17-year-old participants over the entire 30-month period were higher than they would have been had they not participated in Job Corps (although this impact is not statistically significant). While staff find this group difficult to deal with, and more of them leave Job Corps before completing their education and training than do older students, the youngest age group appears to benefit substantially from their program experiences soon after they leave the program. It will be especially important to observe the time trajectory of the impacts for this group over a longer period.

Among older students, the greatest earnings gains were among those who lacked a high school credential. We speculate that these students benefited from the highly structured environment and the intensive instruction in academic subjects and a trade that Job Corps offered. Older students who were better prepared academically did well in Job Corps, but they also were more likely to do well in other education and training settings and the workplace. Consequently, Job Corps was less able to raise their employment and earnings. Of course, we need to wait for longer-term impacts to be confident that short-term gains of older students were not lower solely because it took longer for the benefits of their participation to become apparent.

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[3] The sample for the Jobstart random assignment evaluation contained about 1,000 program group members and 1,000 control group members.

Impacts on earnings for residential students were positive near the end of the follow-up period for most groups. Short-term earnings impacts for nonresidential students were also positive overall. Yet it is not appropriate to conclude that the residential component could be abolished and everyone served just as well in the nonresidential component. Indeed, our findings point to the opposite conclusion. The nonresidential component appears to provide positive benefits for females with children, but not for males or for females with no children. Thus the nonresidential program provides an avenue of participation in Job Corps--and commensurate earnings gains--for a group who would be unable to participate in the residential Job Corps program because of family responsibilities. The finding that males and females without children who participate in the nonresidential component derive no net benefit over and above the benefit they can get from the many other education and training opportunities available in the community appears very consistent with the findings on youth from the National JTPA Study and from the Jobstart Demonstration.

The 48-month interview data will be used to assess the extent to which the beneficial employment, earnings, and related impacts that we have found in the short term, and the pattern of impacts across subgroups, persisted past the 30-month point. This future analysis will provide a more complete answer to the question of whether Job Corps is a worthwhile investment.

REFERENCES

Ashenfelter, O., and A. Krueger. "Estimates of the Economic Return to Schooling from a New Sample of Twins." *American Economic Review,* vol. 84, 1994.

Berktold, J., S. Geis, and P. Kaufman. "Subsequent Educational Attainment of High School Dropouts." Washington, DC: U.S. Department of Education, National Center for Education Statistics, 98-085, 1998.

Bloom, H. "Accounting for No-Shows in Experimental Evaluation Designs." *Evaluation Review,* vol. 8, 1984.

Bloom, H., L. Orr, G. Cave, S. Bell, and F. Doolittle. "The National JTPA Study: Title IIA Impacts on Earnings and Employment at 18 Months." Cambridge, MA: Abt Associates, January 1993.

Boesel, D., N. Alsalam, and T. Smith. "Educational and Labor Market Performance of GED Recipients." Washington, DC: U.S. Department of Education, 1998.

Burghardt, J., T. Ensor, M. Gritz, R. Jackson, T. Johnson, S. McConnell, C. Metcalf, and P. Schochet. "Evaluation of the Impact of the Job Corps Program on Participants' Postprogram Labor Market and Related Behavior: Study Design Report." Princeton, NJ: Mathematica Policy Research, Inc., July 1994.

Burghardt, J., S. McConnell, A. Meckstroth, P. Schochet, T. Johnson, and J. Homrighausen. "National Job Corps Study: Report on Study Implementation." Princeton, NJ: Mathematica Policy Research, Inc., April 1999.

Cameron, S., and J. Heckman. "The Non-equivalence of High School Equivalents." *Journal of Labor Economics,* vol. 11, no. 1, part 1, 1993.

Card, D. "Earnings, School, and Ability Revisited." In *Research in Labor Economics,* vol. 14, edited by Solomon W. Polachek. Greenwich, CT: JAI Press, 1995.

Cave G., H. Bos, F. Doolittle, and C. Toussaint. "Jobstart: Final Report on a Program for School Dropouts." New York: Manpower Development Research Corporation, October 1993.

DuMouchel, W., and G. Duncan. "Using Sample Survey Weights in Multiple Regression Analyses of Stratified Samples." *Journal of the American Statistical Association,* vol. 78, no. 383, September 1983.

Gritz, M., and T. Johnson. "National Job Corps Study: Factors Associated with Enrolling in Job Corps, Selecting a Trade, and Graduating." Seattle, WA: Battelle Human Affairs Research Centers, forthcoming.

Johnson, T., M. Gritz, R. Jackson, J. Burghardt, C. Boussy, J. Leonard, and C. Orians. "National Job Corps Study: Report on the Process Analysis." Princeton, NJ: Mathematica Policy Research, Inc., February 1999.

Kane, T., and C. Rouse. "The Community College: Educating Students on the Margin Between College and Work." *Journal of Economic Perspectives,* winter 1999.

Katz, L., and A. Krueger. "The High-Pressure U.S. Labor Market of the 1990s." *Brookings Papers on Economic Activity,* vol. 1, 1999.

McConnell, S. "The Value of Output and Services Produced by Students While Enrolled in Job Corps." Princeton, NJ: Mathematica Policy Research, Inc., February 1999.

Orr, L., H. Bloom, S. Bell, F. Doolittle, W. Lin, and G. Cave. *Does Training for the Disadvantaged Work? Evidence from the National JTPA Study.* Washington, DC: Urban Institute Press, 1996.

Schochet, P. "National Job Corps Study: Characteristics of Youths Served by Job Corps." Princeton, NJ: Mathematica Policy Research, Inc., January 1998a.

Schochet, P. "National Job Corps Study: Methodological Appendixes on Sample Implementation and Baseline Interviewing." Princeton, NJ: Mathematica Policy Research, Inc., January 1998b.

Schochet, P. "National Job Corps Study: Methodological Appendixes on the 30-Month Impact Analysis." Princeton, NJ: Mathematica Policy Research, Inc., forthcoming.

APPENDIX A

SUBGROUP SAMPLE SIZES

TABLE A.1

SUBGROUP SAMPLE SIZES FOR THE 30-MONTH SAMPLE

		Program Group		
Subgroup	Control Group	Full Sample	Job Corps Participants	Percentage of Study Population
Gender				
Male	2,811	4,028	2,989	59.4
Female	1,665	3,283	2,257	40.6
Missing	0	0	0	
Age at Application				
16 to 17	1,905	2,958	2,286	41.2
18 to 19	1,420	2,304	1,598	32.0
20 to 24	1,151	2,049	1,362	26.8
Missing	0	0	0	
Educational Attainment at Random Assignment				
Had a high school diploma	814	1,411	951	18.3
Had a GED	230	314	210	4.8
Had neither	3,413	5,537	4,050	77.0
Missing	19	49	35	
Presence of Children at Random Assignment for Females				
Had children	516	1,054	666	28.7
Had no children	1,135	2,207	1,579	71.3
Missing	14	22	12	
Arrest History at Random Assignment				
Never arrested	3,215	5,355	3.928	76.6
Ever arrested for nonserious crimes only[a]	798	1,235	854	18.7
Ever arrested for serious crimes[a]	199	315	221	4.7
Missing[b]	264	406	243	
Race				
White, non-Hispanic	1,173	1,934	1,362	27.0
Black, non-Hispanic	2,185	3,581	2,591	47.4
Hispanic	787	1,247	891	17.7
Other	331	549	402	7.9
American Indian or Alaskan Native	180	280	207	4.1
Asian or Pacific Islander	86	149	111	2.2
Other	65	120	84	1.6
Missing	0	0	0	

TABLE A.1 *(continued)*

Subgroup	Control Group	Program Group Full Sample	Program Group Job Corps Participants	Percentage of Study Population
Job Corps Application Date and the New Job Corps Policies				
Prior to 3/1/95 (before ZT)	960	1,607	1,119	22.3
On or after 3/1/95 (after ZT)	3,516	5,704	4,127	77.7
Missing	0	0	0	
Residential Designation Status				
Residential designees	3,742	5,863	4,320	86.0
Males	2,592	3,633	2,712	55.3
Females without children	941	1,830	1,347	25.3
Females with children	199	388	254	5.4
Nonresidential designees	734	1,448	926	14.0
Males	219	395	277	4.2
Females without children	194	377	232	3.6
Females with children	317	666	412	6.2
Missing	0	0	0	
Sample Size	**4,476**	**7,311**	**5,246**	**80,883**

SOURCE: Baseline Interview data and ETA-652 Supplement data.

[a] Serious crimes include murder, assault, robbery, and burglary. Nonserious crimes include larceny, vehicle theft, other property crimes, drug law violations, other personal crimes, and other miscellaneous crimes.

[b] Crime information was not collected for those who completed the abbreviated baseline interview at the end of the 12-month interview. These youths were administered this interview because they did not complete a full baseline interview.

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APPENDIX B

SUPPLEMENTARY TABLES TO CHAPTER IV

TABLE B.1

QUARTERLY ENROLLMENT RATES IN JOB CORPS FOR PROGRAM GROUP MEMBERS
(Percentages)

		Gender			Age		
	Total	All Males	All Females	Females with Children	16 to 17	18 to 19	20 to 24
Enrolled in a Job Corps Center	72.9	75.3	69.5	63.6	78.6	70.2	67.5
Participation Rates, by Quarter							
1	66.7	68.5	64.1	57.3	72.3	64.2	61.2
2	52.6	53.7	51.0	44.0	55.6	50.8	50.1
3	38.8	38.9	38.7	32.3	38.5	38.4	39.9
4	27.6	27.8	27.3	22.4	26.4	26.8	30.2
5	21.8	22.1	21.4	17.9	21.5	20.6	23.7
6	14.3	14.1	14.7	12.1	13.9	13.3	16.2
7	9.4	9.4	9.5	8.1	8.7	8.8	11.1
8	6.3	6.0	6.8	5.9	5.5	6.2	7.8
9	4.5	4.5	4.5	4.1	4.0	4.7	5.1
10	3.1	2.9	3.4	2.9	2.9	3.3	3.2
Enrolled at 30 Months	2.0	1.9	2.1	1.5	1.9	2.0	2.0
Number of Centers Attended							
0	27.2	24.9	30.6	36.6	21.6	29.9	32.6
1	66.7	68.5	64.1	58.8	72.4	63.5	61.7
2	5.8	6.3	5.2	4.6	5.8	6.4	5.2
3	0.3	0.4	0.1	0.1	0.2	0.2	0.4
Sample Size[a]	**5,246**	**2,989**	**2,257**	**666**	**2,286**	**1,598**	**1,362**

SOURCE: 12- and 30-month follow-up interview data.

NOTE: Data pertain to program group members in the research sample. All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse.

TABLE B.2

PARTICIPATION IN OTHER JOB CORPS ACTIVITIES FOR PROGRAM GROUP ENROLLEES
(Percentages)

		Gender			Age		
Activity or Program	Total	All Males	All Females	Females with Children	16 to 17	18 to 19	20 to 24
World of Work (WOW)	75.9	74.7	77.8	72.8	73.8	78.2	76.7
Progress/Performance Evaluation Panels (P/PEP)	81.6	80.5	83.3	80.5	80.2	81.8	83.7
Health Classes	74.3	74.7	73.7	70.5	73.0	75.2	75.6
Parenting Skills Classes	62.6	61.1	65.0	64.8	60.3	62.5	66.7
Social Skills Training (SST)	74.9	74.6	75.4	69.0	74.2	74.1	77.2
Cultural Awareness Classes	64.2	62.5	66.9	65.0	60.3	65.8	68.9
Alcohol and Other Drugs of Abuse Program (AODA)	47.5	48.8	45.6	42.2	48.2	47.5	46.3
Sample Size[a]	**5,246**	**2,989**	**2,257**	**666**	**2,286**	**1,598**	**1,362**

SOURCE: 12- and 30-month follow-up interview data.

NOTE: Data pertain to program group members who enrolled in a Job Corps center during the 30 months after random assignment. All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse.

TABLE B.3

JOB PLACEMENT SERVICES FOR PROGRAM GROUP ENROLLEES

(Percentages)

		Gender			Age		
	Total	All Males	All Females	Females with Children	16 to 17	18 to 19	20 to 24
Got Help Looking for a Job from Job Corps Staff or a Job Corps Placement Contractor	39.0	38.4	39.8	37.1	38.8	37.5	41.0
Type of Job Placement Services Received[a]							
Aptitude or skills assessment	44.7	46.2	42.4	45.5	42.2	43.5	50.1
Resume-writing assistance	54.3	51.9	57.9	59.0	50.9	56.1	57.9
Developing interviewing skills	58.0	56.0	61.0	58.3	54.3	60.0	62.0
Job search training	57.9	57.1	59.2	61.1	56.4	58.0	60.3
Career and job counseling	40.2	38.0	43.5	47.7	35.5	41.7	46.5
Job clubs or job banks	18.3	17.3	19.9	16.4	17.0	19.0	19.7
Direct job referral	48.2	47.9	48.6	53.0	42.6	51.9	53.3
Relocation assistance	26.3	27.7	24.2	18.3	24.7	27.4	27.8
Aid in enrolling in other training or education programs	16.8	16.6	17.2	16.6	17.3	15.8	17.2
Aid in joining the military	12.9	14.3	10.7	8.1	13.0	13.0	12.6
Other	26.1	28.0	23.3	17.9	25.0	26.8	27.0
Got a Job as a Result of the Job Placement Services Received[a]	41.1	43.9	36.8	42.2	37.4	40.5	47.8
Sample Size[a]	**5,246**	**2,989**	**2,257**	**666**	**2,286**	**1,598**	**1,362**

SOURCE: 12- and 30-month follow-up interview data.

NOTE: Data pertain to program group members who enrolled in and left a Job Corps center during the 30 months after random assignment. All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse.

[a] Data pertain to those who received help looking for a job from Job Corps staff or a Job Corps placement contractor.

TABLE B.4

STUDENTS' ASSESSMENT OF OTHER JOB CORPS ACTIVITIES FOR PROGRAM GROUP ENROLLEES
(Percentages)

			Gender			Age		
Program or Activity	Extent to Which Program Was Beneficial	Total	All Males	All Females	Females with Children	16 to 17	18 to 19	20 to 24
World of Work (WOW)								
	A lot	55.6	53.7	58.4	62.3	56.8	54.8	54.5
	A little	34.0	35.1	32.4	28.8	34.7	34.9	31.8
	Not at all	10.4	11.2	9.2	8.8	8.5	10.2	13.7
Progress/Performance Evaluation Panels (P/PEP)								
	A lot	61.2	58.6	65.1	64.7	58.2	61.2	66.3
	A little	30.3	32.5	27.0	26.0	33.2	30.1	25.4
	Not at all	8.5	8.9	7.9	9.3	8.6	8.6	8.3
Health Classes								
	A lot	59.6	57.1	63.7	64.8	60.6	57.0	61.1
	A little	31.3	32.9	28.8	28.7	30.7	33.2	30.0
	Not at all	9.1	10.1	7.5	6.5	8.6	9.7	8.9
Parenting Skills Classes								
	A lot	57.5	55.7	60.1	56.5	56.4	58.2	58.5
	A little	32.7	34.9	29.6	30.5	33.9	32.0	31.7
	Not at all	9.8	9.4	10.4	13.0	9.7	9.9	9.8
Social Skills Training (SST)								
	A lot	58.9	55.7	63.7	63.1	58.8	57.5	60.6
	A little	31.0	33.6	27.0	28.8	31.6	32.0	28.9
	Not at all	10.1	10.6	9.3	8.1	9.6	10.4	10.5
Cultural Awareness Classes								
	A lot	60.4	57.4	64.6	62.8	58.4	60.0	63.8
	A little	31.9	34.2	28.5	28.5	34.2	31.4	29.0
	Not at all	7.8	8.3	6.9	8.7	7.4	8.7	7.3
Alcohol and Other Drugs of Abuse Program (AODA)								
	A lot	59.5	55.9	65.9	64.7	58.6	58.7	62.1
	A little	25.8	28.0	21.9	24.5	25.2	25.8	27.1
	Not at all	14.7	16.2	12.2	10.8	16.2	15.5	10.8
Sample Size[a]		**5,246**	**2,989**	**2,257**	**666**	**2,286**	**1,598**	**1,362**

SOURCE: 12- and 30-month follow-up interview data.

NOTE: Data pertain to program group members who took the specified classes or participated in the specified programs. All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse.

TABLE B.5

JOB CORPS EXPERIENCES, BY RESIDENTIAL DESIGNATION STATUS AND GENDER

Subgroup	Enrollment Rate (Percentage)	Average Length of Stay in Job Corps (Months)	In Job Corps Less than One Month (Percentage)	In Job Corps More than 12 Months (Percentage)	Average Hours in Academic Classes	Average Hours in Vocational Training	Average Hours in Academic or Vocational Training
Residential Designees							
All residents	74.2	8.0	28.1	23.4	557	713	1,056
Males	75.6	7.8	29.1	22.2	543	711	1,040
Females without children	73.2	8.5	25.0	26.2	605	741	1,125
Females with children	65.3	7.1	32.6	19.3	462	597	879
Nonresidential Designees							
All nonresidents	64.7	8.1	25.8	23.2	531	655	965
Males	70.9	7.4	28.6	19.3	574	645	994
Females without children	62.1	8.6	25.1	26.3	538	658	943
Females with children	62.2	8.4	24.3	24.1	496	661	957

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse.

TABLE B.6

EXPERIENCES IN JOB CORPS, BY HIGH SCHOOL CREDENTIAL STATUS, ARREST HISTORY, RACE, AND APPLICATION DATE

Subgroup	Enrollment Rate (Percentage)	Average Length of Stay in Job Corps (Months)	In Job Corps Less than One Month (Percentage)	In Job Corps More than 12 Months (Percentage)	Average Hours in Academic Classes	Average Hours in Vocational Training	Average Hours in Academic or Vocational Training)
Educational Attainment at Random Assignment and Age at Application							
Had high school diploma or GED							
Age 16 to 17	68.0	9.1	23.1	27.6	351	883	1,076
Age 18 to 19	69.8	8.9	22.8	27.1	339	901	1,083
Age 20 to 24	65.4	9.4	23.1	29.0	348	872	1,071
Had no high school credential	74.3	7.7	29.1	22.3	606	658	1,034
Age 16 to 17	78.8	7.4	30.2	20.9	601	624	1,007
Age 18 to 19	68.9	7.8	28.5	22.8	587	683	1,041
Age 20 to 24	70.9	8.7	25.3	27.3	696	754	1,162
Arrest History at Random Assignment							
Never arrested	74.6	8.4	26.3	25.6	581	744	1,094
Ever arrested for nonserious crimes only	70.7	6.8	32.0	17.1	437	608	894
Ever arrested for serious crimes[a]	71.5	6.7	31.1	14.2	496	572	888
Race and Ethnicity							
White non-Hispanic	71.8	7.6	28.1	21.6	398	734	985
Black non-Hispanic	73.7	7.6	29.7	20.7	568	649	997
Hispanic	72.2	9.4	21.2	31.0	710	784	1,208
Other[b]	73.1	8.5	28.8	28.8	661	784	1,186
Job Corps Application Date and the New Job Corps Policies	29.7						
Prior to 3/1/95 (before ZT)	21.2	7.7	29.9	23.7	559	674	1,014
On or after 3/1/95 (after ZT)	28.8	8.0	27.2	23.2	552	715	1,053

SOURCE: Baseline, and 12-month and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse.

[a] Serious crimes include aggravated assault, murder, robbery, and burglary.

[b] This group includes American Indians, Alaskan Natives, Asians, and Pacific Islanders.

APPENDIX C

SUPPLEMENTARY TABLES TO CHAPTER V

TABLE C.1

IMPACTS ON TIME SPENT IN EDUCATION AND TRAINING PROGRAMS, BY TYPE OF PROGRAM

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Average Percentage of Weeks Ever in Education or Training						
Job Corps	19.3	0.1	19.2 ***	26.5	26.4***	
Programs other than Job Corps	13.1	20.5	-7.4 ***	11.2	-10.1***	-47.4
ABE[d]	0.8	1.3	-0.5 ***	0.8	-0.7***	-47.7
GED[d]	4.1	6.5	-2.4 ***	3.4	-3.3***	-49.2
High school[d]	4.3	9.0	-4.6 ***	3.5	-6.4***	-64.5
Vocational, technical, or trade school	3.0	4.1	-1.1 ***	2.7	-1.4***	-35.0
Two-year college	2.4	2.7	-0.4*	2.1	-0.5*	-18.9
Four-year college	0.6	0.7	-0.1	0.5	-0.1	-16.4
Other	0.3	0.3	-0.1	0.2	-0.1	-28.2
Average Hours Per Week Ever in Program						
Job Corps	7.7	0.0	7.7***	10.6	10.5***	
Programs other than Job Corps	3.1	5.0	-1.9***	2.7	-2.6	-48.3
ABE[d]	0.2	0.3	-0.1***	0.1	-0.1***	-47.7
GED[d]	0.7	1.1	-0.5***	0.6	-0.6***	-52.8
High school[d]	1.4	2.7	-1.4***	1.1	-1.9***	-62.7
Vocational, technical, or trade school	0.8	1.1	-0.3***	0.8	-0.4***	-32.6
Two-year college	0.5	0.5	0.0	0.4	0.0	-9.0
Four-year college	0.1	0.1	0.0	0.1	0.0	-14.6
Other	0.1	0.1	0.0	0.0	0.0	-40.8
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[d] Figures pertain to sample members who did not have a high school credential at baseline.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE C.2

TIME SPENT IN EDUCATION AND TRAINING PROGRAMS FOR THOSE ENROLLED IN TYPE OF PROGRAM

Outcome Measure	Program Group	Control Group	Difference[a]
Average Percentage of Weeks in Education or Training for Those Enrolled in Type of Program (Percentage)			
Programs other than Job Corps	24.4	31.9	-7.5***
ABE/ESL[b]	13.7	17.1	-3.4**
GED[b]	16.8	18.6	-1.8**
High school[b]	19.8	29.3	-9.5***
Vocational, technical, or trade school	17.0	19.7	-2.7***
Two-year college	27.9	30.4	-2.5
Four-year college	30.9	31.2	-0.3
Other	12.0	10.3	1.6
Average Hours per Week in Education or Training for Those Enrolled in Type of Program			
Programs other than Job Corps	5.8	7.7	-1.9***
ABE/ESL[b]	2.6	3.3	-0.7**
GED[b]	2.8	3.2	-0.5***
High school[b]	6.3	8.9	-2.6***
Vocational, technical, or trade school	4.7	5.3	-0.6**
Two-year college	5.8	5.9	-0.0
Four-year college	7.0	7.0	0.0
Other	2.5	2.5	0.1
Sample Size	**7,311**	**4,476**	**11,787**

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Because these estimates are conditional on enrollment, they are not impact estimates.

[b] Data pertain to those without a high school credential at random assignment.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE C.3

TYPES OF PROGRAMS RECEIVED ACADEMIC CLASSROOM INSTRUCTION AND VOCATIONAL TRAINING

Outcome Measure	Program Group	Control Group	Difference[a]
Places Ever Took Academic Classes (for Those Who Took Any Classes)			
Job Corps	76.4	0.5	75.8***
Programs other than Job Corps	23.4	99.3	-75.9***
High school/GED or ABE	15.2	76.0	-60.7***
Vocational, technical, or Trade school	3.3	13.6	-10.3***
Two-year college	5.1	14.7	-9.6***
Four-year college	1.2	3.1	-1.9***
Other	4.2	17.4	-13.2***
Places Ever Received Vocational Training (for Those Who Received Any Training)			
Job Corps	89.4	3.2	86.2***
Programs other than Job Corps	10.4	96.8	-86.4***
High school/GED or ABE	1.5	18.7	-17.2***
Vocational, technical, or trade school	7.6	70.4	-62.8***
Two-year college	1.7	12.2	-10.5***
Four-year college	0.1	0.7	-0.5***
Other	0.2	3.6	-3.4**
Sample Size	**7,311**	**4,476**	**11,787**

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Because these estimates are conditional on enrollment, they are not impact estimates.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE C.4

IMPACTS ON EDUCATION AND TRAINING OUTCOMES FOR 16- AND 17-YEAR-OLDS

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Ever Enrolled in a Program During the 30 Months After Random Assignment***	94.5	77.4	17.1***	100.0	21.8***	27.8
Percentage Enrolled in a Program, by Quarter After Random Assignment						
1***	83.3	43.2	40.1***	95.0	51.1***	116.2
2***	71.2	44.4	26.8***	80.0	34.1***	74.1
3***	59.3	44.6	14.7***	65.1	18.7***	40.4
4***	50.2	44.6	5.6***	53.0	7.2***	15.7
5***	44.5	41.0	3.6**	47.0	4.6**	10.8
6***	35.4	34.5	0.9	36.4	1.2	3.3
7***	30.1	30.8	-0.8	30.6	-1.0	-3.1
8***	26.6	27.8	-1.3	26.3	-1.6	-5.8
9**	24.5	26.1	-1.6	24.1	-2.1	-7.9
10	22.6	24.0	-1.4	22.5	-1.8	-7.5
Average Percentage of Weeks Ever in Education or Training***	34.4	28.0	6.4***	36.7	8.1***	28.4
Average Hours per Week Ever in Education or Training***	11.4	7.2	4.1***	12.6	5.3***	71.5
Type of Programs Other than Job Corps Ever Attended						
Any program***	63.8	77.4	-13.6***	60.8	-17.3***	-22.2
ABE or ESL[e]	6.2	8.6	-2.4***	5.8	-3.1***	-34.9
GED***[e]	26.5	38.7	-12.2***	23.3	-15.6***	-40.1
High school***[e]	33.3	46.1	-12.8***	31.3	-16.3***	-34.3
Vocational, technical, or trade school	14.8	18.1	-3.3***	15.0	-4.2***	-21.7
Two-year college***	5.7	5.9	-0.1	5.9	-0.1	-2.4
Four-year college	1.1	1.0	0.1	1.0	0.1	16.3
Other	2.3	3.4	-1.1**	1.9	-1.4**	-42.3
Percentage Ever Took Academic Classes***	89.7	72.0	17.7***	95.6	22.5***	30.8
Average Percentage of Weeks Ever in Academic Classes***	25.8	22.6	3.2***	27.0	4.0***	17.5
Average Hours per Week in Academic Classes						
All months***	5.9	5.7	0.2	6.1	0.3	5.5
Months 1 to 12***	9.1	7.9	1.2***	9.9	1.5***	18.5
Months 13 to 24***	4.6	5.1	-0.4	4.5	-0.6	-11.2
Months 25 to 30***	2.7	3.0	-0.3	2.6	-0.4	-12.8
Percentage Ever Received Vocational Training	74.8	20.6	54.2***	91.8	69.0***	302.7
Average Percentage of Weeks Received Vocational Training***	18.3	4.5	13.8***	22.4	17.5***	364.1

TABLE C.4 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Average Hours per Week Received Vocational Training						
All months***	4.1	0.8	3.3***	5.0	4.2***	535.3
Months 1 to 12	6.9	0.8	6.2***	8.7	7.8***	913.7
Months 13 to 24	2.6	0.8	1.8***	3.1	2.3***	292.2
Months 25 to 30	1.5	0.7	0.7***	1.6	0.9***	139.5
Degrees, Diplomas, and Certificates Ever Received						
GED certificate or high school diploma**[e]	38.2	23.9	14.3***	41.1	18.2***	79.4
GED certificate**[e]	34.1	17.7	16.5***	37.7	21.0***	126.0
High school diploma[e]	4.0	6.3	-2.2***	3.4	-2.8***	-45.2
Vocational, technical, or trade certificate	24.8	5.8	19.1***	30.0	24.3***	422.3
College degree (two-year or four-year)	0.2	0.2	0.0	0.1	0.0	3.9
Average Highest Grade Completed at the 30-Month Interview	9.9	10.0	-0.1***	9.9	-0.1***	-1.4
Sample Size	**2,958**	**1,905**	**4,863**	**2,286**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to an outcome indicate the significance level of the statistical test for differences in the impacts across the three subgroups defined by age and high school credential status.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[e] Figures pertain to those who did not have a high school credential at random assignment.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

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TABLE C.5

IMPACTS ON EDUCATION AND TRAINING OUTCOMES FOR 18- TO 24-YEAR-OLDS WITHOUT A HIGH SCHOOL CREDENTIAL AT RANDOM ASSIGNMENT

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Ever Enrolled in a Program During the 30 Months After Random Assignment***	87.2	58.3	28.9***	100.0	41.7***	71.4
Percentage Enrolled in a Program, by Quarter After Random Assignment						
1***	70.7	20.6	50.0***	93.3	72.1***	340.3
2***	58.8	23.7	35.1***	76.7	50.6***	194.1
3***	48.8	23.9	24.8***	61.6	35.8***	138.7
4***	40.9	22.5	18.4***	49.1	26.6***	118.1
5***	36.1	20.8	15.3***	42.2	22.0***	108.8
6***	28.7	19.1	9.6***	32.8	13.8***	72.3
7***	25.2	17.7	7.5***	27.8	10.8***	63.5
8***	22.4	17.7	4.7***	23.7	6.8***	40.4
9**	20.7	17.9	2.9**	21.4	4.1**	23.9
10	19.4	18.8	0.7	19.4	1.0	5.3
Average Percentage of Weeks Ever in Education or Training***	28.7	14.7	13.9***	34.6	20.1***	138.2
Average Hours per Week Ever in Education or Training***	9.6	3.0	6.6***	12.4	9.5***	331.6
Type of Programs Other than Job Corps Ever Attended						
Any program***	48.8	58.1	-9.3***	45.0	-13.4***	-22.9
ABE or ESL[e]	5.8	6.8	-1.0	4.8	-1.4	-22.4
GED***[e]	21.9	30.3	-8.4***	17.8	-12.1***	-40.5
High school***[e]	9.4	13.5	-4.1***	8.5	-6.0***	-41.2
Vocational, technical, or trade school	16.8	18.8	-2.1	16.0	-3.0	-15.6
Two-year college***	6.5	5.8	0.6	7.1	0.9	14.0
Four-year college	0.8	0.8	0.0	0.8	0.0	-2.9
Other	1.7	1.9	-0.3	1.4	-0.4	-21.4
Percentage Ever Took Academic Classes***	79.1	48.4	30.7***	92.5	44.3***	91.9
Average Percentage of Weeks Ever in Academic Classes***	18.7	12.7	6.1***	22.4	8.7***	64.0
Average Hours per Week in Academic Classes						
All months***	3.9	2.3	1.6***	4.8	2.3***	95.6
Months 1 to 12***	6.3	2.9	3.4***	8.2	4.9***	151.1
Months 13 to 24***	3.0	2.1	0.9***	3.3	1.3***	60.9
Months 25 to 30***	1.7	1.5	0.2	1.8	0.3	18.8
Percentage Ever Received Vocational Training	66.7	16.0	50.7***	89.4	73.0***	446.9
Average Percentage of Weeks Received Vocational Training***	17.1	3.0	14.1***	23.2	20.3***	697.2

TABLE C.5 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Average Hours per Week Received Vocational Training						
All months***	4.2	0.7	3.5***	5.6	5.0***	810.0
Months 1 to 12	7.0	0.7	6.3***	9.9	9.1***	1195.9
Months 13 to 24	2.7	0.6	2.1***	3.5	3.0***	601.5
Months 25 to 30	1.3	0.7	0.6***	1.5	0.9***	155.9
Degrees, Diplomas, and Certificates Ever Received				48.1	26.5***	123.3
GED certificate or high school diploma***[e]	40.9	22.5	18.4***			
GED certificate***[e]	36.3	17.1	19.1***	43.6	27.5***	171.1
High school diploma[e]	4.6	5.2	-0.7	4.3	-1.0	-18.3
Vocational, technical, or trade certificate	26.4	8.4	17.9***	35.1	25.8***	277.6
College degree (two-year or four-year)	0.3	0.2	0.0	0.2	0.0	12.1
Average Highest Grade Completed at the 30-Month Interview	10.5	10.5	0.0	10.4	0.0	0.2
Sample Size	**2,650**	**1,567**	**4,217**	**1,812**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to an outcome indicate the significance level of the statistical test for differences in the impacts across the three subgroups defined by age and high school credential status.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

[e] Figures pertain to those who did not have a high school credential at random assignment.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE C.6

IMPACTS ON EDUCATION AND TRAINING OUTCOMES FOR 18- TO 24-YEAR-OLDS WITH A HIGH SCHOOL CREDENTIAL AT RANDOM ASSIGNMENT

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Ever Enrolled in a Program During the 30 Months After Random Assignment***	84.9	50.1	34.8***	100.0	51.2***	104.7
Percentage Enrolled in a Program, by Quarter After Random Assignment						
1***	69.1	15.6	53.4***	93.1	78.5***	537.2
2***	60.8	20.3	40.5***	80.0	59.5***	290.3
3***	52.1	21.8	30.3***	66.3	44.5***	203.7
4***	43.9	25.1	18.8***	54.3	27.6***	103.7
5***	38.9	23.0	15.9***	45.5	23.3***	105.3
6***	32.4	22.3	10.1***	35.0	14.9***	74.0
7***	26.9	21.9	5.0***	28.7	7.3***	34.0
8***	24.4	20.6	3.8**	25.9	5.6**	27.3
9**	23.9	21.1	2.9*	25.0	4.3*	20.5
10	22.7	22.5	0.2	23.2	0.3	1.3
Average Percentage of Weeks Ever in Education or Training***	31.5	16.9	14.6***	38.1	21.5***	128.8
Average Hours per Week Ever in Education or Training***	10.6	3.7	7.0***	13.8	10.2***	290.7
Type of Programs Other than Job Corps Ever Attended						
Any program***	43.9	49.9	-6.0***	39.7	-8.8***	-18.0
Vocational, technical, or trade school	25.4	28.7	-3.3*	22.3	-4.8*	-17.7
Two-year college***	16.9	19.7	-2.8*	15.0	-4.1*	-21.7
Four-year college	5.4	6.3	-0.8	4.3	-1.2	-22.1
Other	2.5	4.0	-1.5**	2.7	-2.2**	-44.2
Percentage Ever Took Academic Classes***	58.8	32.5	26.3***	68.7	38.7***	128.6
Average Percentage of Weeks Ever in Academic Classes***	15.4	11.3	4.0***	16.2	5.9***	57.6
Average Hours per Week in Academic Classes						
All months***	3.3	2.2	1.2***	3.5	1.7***	96.6
Months 1 to 12***	3.7	1.8	1.9***	4.4	2.8***	179.1
Months 13 to 24***	3.2	2.4	0.8*	3.0	1.2*	68.5
Months 25 to 30***	2.7	2.4	0.3	2.5	0.4	17.5
Percentage Ever Received Vocational Training	74.0	31.0	43.0***	92.9	63.1***	212.0
Average Percentage of Weeks Received Vocational Training***	20.9	8.3	12.6***	26.9	18.5***	222.5

TABLE C.6 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Average Hours per Week Received Vocational Training						
All months***	6.0	2.1	3.9***	7.8	5.7***	279.9
Months 1 to 12	10.0	1.8	8.2***	13.5	12.0***	806.5
Months 13 to 24	3.9	2.3	1.6***	4.7	2.3***	95.9
Months 25 to 30	2.2	2.2	-0.1	2.4	-0.1	-3.2
Degrees, Diplomas, and Certificates Ever Received						
Vocational, technical, or trade certificate	35.7	12.8	22.8***	45.6	33.5***	278.5
College degree (two-year or four-year)	1.7	2.6	-0.9	1.6	-1.3	-43.8
Average Highest Grade Completed at the 30-Month Interview	12.0	12.0	0.0	12.0	0.0	0.2
Sample Size	**1,658**	**985**	**2,643**	**1,115**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to an outcome indicate the significance level of the statistical test for differences in the impacts across the three subgroups defined by age and high school credential status.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

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TABLE C.7

IMPACTS ON KEY EDUCATION AND TRAINING OUTCOMES, BY GENDER, RESIDENTIAL DESIGNATION STATUS, ARREST HISTORY, RACE AND ETHNICITY, AND APPLICATION DATE

	Ever Participated in Education or Training		Average Hours per Week in Education and Training		Average Hours per Week in Academic Classes		Average Hours per Week in Vocational Training		Received GED[a]	
	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]
Gender										
Males	61.5	37.6***	4.8	7.6***	3.7	1.2***	0.9	4.8***	17.7	22.3***
Females	68.6	30.3***	5.2	8.0***	3.6	1.6***	1.2	4.8***	16.8	27.0***
(P-value)[c]		0.000***		0.683		0.442		0.325		0.391
Residential Designees										
Males	61.6	37.6***	4.8	7.5***	3.7	1.2***	0.8	4.8***	18.0	22.3***
Females	68.5	30.7***	5.3	7.8***	3.7	1.6***	1.2	4.8***	16.3	28.5***
(P-value)[c]		0.000***		0.731		0.506		0.536		0.118
Nonresidential Designees										
Males	60.1	37.5***	4.3	7.6***	3.7	1.2***	1.3	4.0***	12.8	23.1***
Females	68.7	28.7***	4.6	8.8***	3.1	1.9***	1.4	4.7***	18.3	20.6***
(P-value)[c]		0.028**		0.884		0.646		0.949		0.479
Arrest History at Random Assignment										
Never arrested	65.2	33.8***	5.2	8.0***	3.8	1.3***	1.2	4.8***	16.4	24.6***
Ever arrested for nonserious crimes	63.2	38.2***	4.5	6.9***	3.4	1.1***	0.7	4.8***	18.4	26.4***
Ever arrested for serious crimes	63.6	36.9***	4.3	7.2***	3.3	1.3***	0.3	4.9***	27.1	9.5***
(P-value)[c]		0.648		0.20**		0.900		0.860		0.042**
Race and Ethnicity										
White non-Hispanic	59.0	41.1***	3.8	7.8***	2.6	0.9**	0.9	5.3***	21.3	32.9***
Black non-Hispanic	65.9	33.4***	5.4	7.2***	4.0	1.3***	1.0	4.3***	15.5	20.0***
Hispanic	65.7	33.1***	5.0	9.4***	3.8	2.1***	1.0	5.3***	17.9	24.9***
Other[d]	70.2	26.2***	5.9	7.6***	4.3	1.6***	1.5	4.7***	15.1	17.9***
(P-value)[c]		0.003***		0.011**		0.348		.112		0.002***
Job Corps Application Date and the New Job Corps Policies										
Prior to 3/1/95 (before ZT)	64.3	34.3***	4.8	8.0***	3.3	1.7***	0.8	4.8***	17.7	23.5***
On or after 3/1/95 (after ZT)	64.4	34.9***	5.0	7.7***	3.7	1.3***	1.0	4.8***	17.2	24.3***
(P-value)[c]		0.546		0.862		0.729		0.941		0.658

TABLE C.7 *(continued)*

SOURCE: Baseline, and 12-month and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of these estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Only includes sample members who did not have a GED or high school diploma at baseline.

[b] Estimated impacts per program participant are measured as the difference between the weighted means for program and control group members divided by the proportion of eligible applicants in the program group who enrolled in Job Corps.

[c] Figures are p-values from tests to jointly test for differences in program impacts across levels of the subgroup.

[d] This group includes American Indians, Alaskan Natives, Asians, and Pacific Islanders.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

APPENDIX D

SUPPLEMENTARY TABLES TO CHAPTER VI

TABLE D.1

IMPACTS ON THE PERCENTAGE OF WEEKS EMPLOYED OR IN AN EDUCATION PROGRAM

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Percentage of Weeks in Any Activity, by Quarter After Random Assignment						
1	66.7	43.7	23.0***	75.1	31.6***	72.4
2	71.0	52.6	18.4***	78.4	25.2***	47.5
3	67.5	56.7	10.8***	72.1	14.8***	25.8
4	64.0	58.8	5.3***	66.8	7.2***	12.1
5	62.4	58.8	3.7***	64.4	5.0***	8.5
6	60.8	58.0	2.7***	61.9	3.8***	6.5
7	60.5	58.6	1.9**	61.6	2.7**	4.5
8	61.8	59.4	2.4***	62.3	3.3***	5.6
9	63.3	61.5	1.9**	64.0	2.6**	4.2
10	64.5	62.1	2.4***	65.4	3.3***	5.2
Percentage of Weeks in Any Activity	63.8	56.3	7.5***	66.9	10.3***	18.1
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impact per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE D.2

IMPACTS ON HOURS PER WEEK EMPLOYED OR IN AN EDUCATION PROGRAM

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Average Hours per Week in Any Activity, by Quarter After Random Assignment						
1	28.2	16.6	11.6***	32.2	15.9***	97.6
2	30.0	20.8	9.2***	33.4	12.6***	60.9
3	28.7	22.7	6.0***	30.9	8.2***	36.4
4	27.1	23.5	3.6***	28.4	5.0***	21.3
5	26.7	24.2	2.5***	27.7	3.5***	14.5
6	26.8	24.8	2.0***	27.6	2.7***	10.8
7	27.0	25.2	1.8***	27.7	2.5***	9.8
8	27.8	25.9	1.8***	28.3	2.5***	9.8
9	28.4	26.9	1.4***	28.8	2.0***	7.3
10	28.6	27.0	1.6***	29.4	2.2***	8.0
Average Hours per Week in Any Activity	27.6	23.5	4.1***	28.9	5.6***	23.9
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impact per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE D.3

IMPACTS ON EMPLOYMENT AND EARNINGS FOR 16- AND 17-YEAR-OLDS

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Employed, by Quarter						
1*	26.1	32.7	-6.6***	23.3	-8.4***	-26.5
2***	26.2	37.2	-11.0***	22.2	-14.0***	-38.7
3*	35.6	43.8	-8.2***	33.3	-10.5***	-23.9
4	43.7	50.3	-6.6***	42.2	-8.4***	-16.6
5**	46.3	47.9	-1.6	45.6	-2.1	-4.3
6***	46.0	45.1	0.9	46.0	1.1	2.6
7***	50.7	48.1	2.6*	51.3	3.3*	6.9
8**	54.9	51.3	3.6**	55.7	4.6**	9.0
9*	59.3	55.8	3.5**	60.6	4.4**	7.9
10	62.8	58.9	3.9***	63.9	5.0***	8.4
Average Number of Jobs	2.4	2.4	0.0	2.4	0.0	-1.3
Average Percentage of Weeks Employed, by Quarter						
1***	14.3	21.2	-6.9***	11.6	-8.8***	-43.2
2***	18.4	27.2	-8.9***	15.3	-11.3***	-42.5
3***	24.9	31.3	-6.4***	22.5	-8.1***	-26.5
4	29.3	34.8	-5.5***	28.0	-7.0***	-20.0
5**	32.7	34.7	-2.1*	31.9	-2.6*	-7.7
6**	35.6	36.0	-0.3	35.6	-0.4	-1.1
7***	40.6	37.9	2.7**	41.1	3.4**	9.0
8***	44.5	41.4	3.0**	45.1	3.9**	9.4
9**	47.4	44.5	2.9**	48.2	3.7**	8.4
10**	50.1	46.4	3.7***	51.0	4.7***	10.1
Average Hours per Week Employed, by Quarter						
1***	5.3	7.4	-2.1***	4.2	-2.6***	-38.4
2***	7.5	10.5	-3.0***	6.2	-3.8***	-38.1
3***	10.3	12.2	-2.0***	9.3	-2.5***	-21.1
4**	12.2	13.7	-1.5***	11.7	-1.9***	-13.7
5***	14.0	14.1	-0.1	13.7	-0.1	-0.6
6***	15.7	15.4	0.3	15.7	0.4	2.5
7***	18.3	16.2	2.1***	18.6	2.7***	16.7
8***	20.2	18.1	2.1***	20.7	2.7***	15.2
9**	21.4	19.6	1.8***	21.8	2.3***	11.7
10**	22.4	20.3	2.1***	23.0	2.7***	13.2
Average Earnings per Week, by Quarter (in 1998 Dollars)						
1***	28.4	40.6	-12.2***	22.1	-15.5***	-41.2
2***	43.4	59.7	-16.4***	35.1	-20.8***	-37.2
3***	61.8	68.9	-7.2**	55.1	-9.1**	-14.2
4**	72.9	78.2	-5.3	69.0	-6.7	-8.8
5***	90.0	87.7	2.3	86.9	2.9	3.5
6**	107.3	100.8	6.5	105.9	8.3	8.5
7***	128.5	108.1	20.4***	129.3	25.9***	25.1
8**	141.0	124.1	16.9***	142.5	21.5***	17.7
9*	150.7	134.7	16.0***	151.6	20.3***	15.5
10***	158.0	137.6	20.4***	160.1	26.0***	19.4

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TABLE D.3 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Average Total Earnings per Week (in 1998 Dollars)***	96.5	93.4	3.1	94.4	4.0	4.4
Average Hourly Wage in the Most Recent Job in Quarter 10 (in Dollars)	6.8	6.5	0.3***	6.8	0.4***	5.9
Job Benefits Available in the Most Recent Job in Quarter 10 (Percentage)						
Health insurance	44.8	41.3	3.5*	45.8	4.5*	10.9
Paid sick leave	37.5	32.1	5.4***	38.5	6.9***	21.6
Paid vacation***	51.5	46.4	5.0***	52.5	6.4***	13.8
Retirement or pension benefits***	37.4	30.0	7.4***	38.0	9.4***	32.8
Sample Size	**2,958**	**1,905**	**4,863**	**2,286**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the three age subgroups.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impact per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE D.4

IMPACTS ON EMPLOYMENT AND EARNINGS FOR 18- AND 19-YEAR-OLDS

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Employed, by Quarter						
1*	34.6	44.0	-9.4***	29.5	-13.4***	-31.2
2***	33.9	49.8	-15.9***	27.4	-22.6***	-45.2
3*	42.7	54.2	-11.5***	38.3	-16.4***	-30.0
4	51.9	59.9	-7.9***	48.2	-11.3***	-19.0
5**	54.7	61.2	-6.6***	52.8	-9.4***	-15.0
6***	54.0	60.1	-6.1***	53.4	-8.7***	-14.0
7***	56.6	60.6	-4.1**	56.3	-5.8**	-9.3
8**	60.8	62.9	-2.0	61.0	-2.9	-4.5
9*	64.1	65.4	-1.3	64.7	-1.8	-2.8
10	67.5	67.5	0.0	69.4	-0.1	-0.1
Average Number of Jobs	2.5	2.6	-0.1	2.5	-0.1	-5.0
Average Percentage of Weeks Employed, by Quarter						
1***	20.5	31.4	-10.8***	15.1	-15.4***	-50.5
2***	24.8	38.7	-13.9***	19.0	-19.7***	-51.0
3***	31.6	43.4	-11.8***	26.9	-16.8***	-38.4
4	38.8	46.3	-7.5***	35.2	-10.7***	-23.3
5**	41.9	48.9	-7.0***	39.8	-10.0***	-20.1
6**	44.3	50.1	-5.8***	43.3	-8.2***	-16.0
7***	46.9	52.5	-5.6***	46.9	-8.0**	-14.5
8***	50.5	53.8	-3.3**	50.3	-4.7**	-8.6
9**	53.7	56.3	-2.6*	54.2	-3.8*	-6.5
10**	55.6	57.1	-1.5	56.8	-2.2	-3.7
Average Hours per Week Employed, by Quarter						
1***	8.1	12.9	-4.9***	5.8	-7.0***	-54.4
2***	10.0	16.0	-6.1***	7.6	-8.6***	-53.1
3***	13.1	18.3	-5.2***	11.1	-7.4***	-39.8
4**	16.5	19.3	-2.8***	14.9	-4.0***	-21.3
5***	17.7	21.5	-3.8***	16.8	-5.4***	-24.4
6***	19.3	22.9	-3.6***	19.1	-5.1***	-21.1
7***	20.8	24.0	-3.2***	21.0	-4.6***	-17.9
8***	22.7	24.8	-2.0***	22.8	-2.9***	-11.3
9**	24.2	25.5	-1.2	24.5	-1.7	-6.6
10**	24.8	25.5	-0.7	25.6	-1.0	-3.6
Average Earnings per Week, by Quarter (in 1998 Dollars)						
1***	49.8	76.8	-27.0***	37.2	-38.4***	-50.8
2***	63.3	97.6	-34.4***	48.6	-48.9***	-50.2
3***	83.9	114.4	-30.6***	71.2	-43.5***	-37.9
4**	104.2	119.4	-15.2***	93.6	-21.6***	-18.7
5***	118.4	138.3	-19.8***	114.2	-28.3***	-19.8
6**	135.8	151.5	-15.7***	135.8	-22.3***	-14.1
7***	147.9	162.7	-14.8**	151.4	-21.1**	-12.2
8**	161.4	168.0	-6.6	164.1	-9.5	-5.5
9*	174.2	176.9	-2.7	178.9	-3.8	-2.1
10***	180.1	181.7	-1.7	188.6	-2.4	-1.3

TABLE D.4 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Average Total Earnings, per Week (in 1998 Dollars)***	117.0	136.6	-19.6***	113.9	-27.9***	-19.7
Average Hourly Wage in the Most Recent Job in Quarter 10 (in Dollars)	7.0	6.9	0.1	7.1	0.2	2.3
Job Benefits Available in the Most Recent Job in Quarter 10 (Percentage)						
Health insurance	50.2	52.5	-2.3	51.3	-3.3	-6.0
Paid sick leave	42.2	42.3	-0.1	43.5	-0.1	-0.2
Paid vacation***	55.8	59.2	-3.5*	56.1	-4.9*	-8.1
Retirement or pension benefits***	40.6	42.9	-2.2	42.2	-3.2	-7.0
Sample Size	**2,304**	**1,420**	**3,724**	**1,598**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the three age subgroups.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impact per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE D.5

IMPACTS ON EMPLOYMENT AND EARNINGS FOR 20- TO 24-YEAR-OLDS

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Employed, by Quarter						
1*	36.8	48.7	-11.9***	31.0	-17.7***	-36.4
2***	36.7	54.2	-17.5***	27.6	-26.0***	-48.5
3*	45.4	58.6	-13.2***	37.5	-19.6***	-34.3
4	53.1	62.4	-9.3***	49.0	-13.8***	-22.0
5**	58.1	64.6	-6.5***	56.7	-9.6***	-14.5
6***	60.0	63.1	-3.0*	59.4	-4.5*	-7.0
7***	61.8	63.6	-1.8	61.6	-2.7	-4.1
8**	66.5	64.0	2.5	66.4	3.7	5.8
9*	70.3	69.0	1.3	71.2	1.9	2.7
10	72.3	70.8	1.5	73.4	2.3	3.2
Average Number of Jobs	2.4	2.5	-0.1*	2.4	-0.2*	-6.4
Average Percentage of Weeks Employed, by Quarter						
1***	22.1	35.0	-12.9***	16.1	-19.1***	-54.2
2***	27.9	44.3	-16.4***	19.2	-24.3***	-55.9
3***	35.8	48.5	-12.7***	28.4	-18.9***	-39.9
4	41.9	51.4	-9.5***	37.2	-14.1***	-27.5
5**	47.3	52.6	-5.4***	44.9	-7.9***	-15.0
6**	51.6	54.0	-2.4	50.3	-3.6	-6.7
7***	53.8	55.9	-2.1	53.3	-3.1	-5.5
8***	57.5	56.9	0.6	56.8	0.9	1.6
9**	61.4	60.3	1.0	61.4	1.5	2.6
10**	64.2	61.3	2.9*	65.2	4.3*	7.0
Average Hours per Week Employed, by Quarter						
1***	8.9	14.6	-5.6***	6.1	-8.4***	-57.7
2***	11.6	18.9	-7.3***	7.7	-10.8***	-58.6
3***	15.0	20.8	-5.8***	11.7	-8.7***	-42.6
4**	17.7	21.9	-4.2***	15.4	-6.3***	-28.9
5***	20.5	22.6	-2.1***	19.3	-3.1***	-13.9
6***	23.2	23.5	-0.4	22.5	-0.5	-2.3
7***	24.3	24.6	-0.3	23.9	-0.5	-2.0
8***	25.6	25.1	0.5	25.2	0.7	3.1
9**	27.3	26.5	0.8	27.4	1.2	4.6
10**	28.2	27.0	1.2	29.0	1.8	6.8
Average Earnings per Week, by Quarter (in 1998 Dollars)						
1***	57.3	92.2	-34.8***	38.6	-51.7***	-57.2
2***	77.6	122.8	-45.2***	49.5	-67.0***	-57.5
3***	99.9	134.6	-34.7***	74.9	-51.4***	-40.7
4**	118.5	140.9	-22.4***	100.1	-33.3***	-25.0
5***	144.5	153.6	-9.1	135.3	-13.5	-9.1
6**	169.4	168.4	1.0	162.2	1.5	0.9
7***	180.3	178.3	2.0	175.4	3.0	1.7
8**	193.8	183.1	10.7	188.9	15.9	9.2
9*	209.0	193.2	15.9**	208.5	23.5**	12.7
10***	215.1	197.4	17.7**	219.5	26.2**	13.6

TABLE D.5 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Average Total Earnings per Week (in 1998 Dollars)***	144.5	154.4	-9.9**	135.8	-14.7**	-9.8
Average Hourly Wage in the Most Recent Job in Quarter 10 (in Dollars)	7.5	7.2	0.3**	7.5	0.5**	7.2
Job Benefits Available in the Most Recent Job in Quarter 10 (Percentage)						
Health insurance	56.0	52.4	3.6	55.4	5.3	10.6
Paid sick leave	46.1	42.5	3.6	46.4	5.3	12.8
Paid vacation***	61.2	58.8	2.4	60.5	3.6	6.4
Retirement or pension benefits***	46.2	43.1	3.1	46.5	4.5	10.8
Sample Size	**2,049**	**1,151**	**3,200**	**1,362**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the three age subgroups.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impact per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE D.6

IMPACTS ON EMPLOYMENT AND EARNINGS FOR MALES

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Employed, by Quarter						
1	32.9	41.5	-8.7***	28.6	-11.5***	-28.7
2*	31.5	47.1	-15.6***	25.6	-20.7***	-44.8
3	40.8	52.6	-11.8***	36.3	-15.7***	-30.2
4	50.1	58.5	-8.4***	46.6	-11.1***	-19.2
5	54.5	58.3	-3.7***	53.2	-5.0***	-8.6
6	54.8	56.2	-1.5	53.8	-2.0	-3.5
7	57.9	58.3	-0.4	57.5	-0.5	-0.9
8	62.2	60.6	1.6	61.8	2.1	3.6
9	66.3	65.6	0.6	66.4	0.8	1.2
10	69.8	68.0	1.8	70.8	2.4	3.5
Average Number of Jobs	2.5	2.6	-0.1	2.5	-0.1	-2.8
Average Percentage of Weeks Employed, by Quarter						
1	18.7	28.7	-10.1***	14.4	-13.4***	-48.2
2*	23.0	36.6	-13.6***	17.9	-18.1***	-50.2
3	30.3	41.1	-10.8***	26.0	-14.3***	-35.5
4	36.6	44.8	-8.2***	33.3	-10.9***	-24.7
5	41.7	45.6	-3.9***	39.8	-5.2***	-11.5
6	45.1	47.1	-2.0*	44.0	-2.7*	-5.8
7	48.4	49.6	-1.2	48.1	-1.6	-3.2
8	52.7	51.6	1.1	52.1	1.4	2.8
9	55.5	55.8	-0.4	55.2	-0.5	-0.8
10	58.6	57.2	1.4	59.3	1.8	3.2
Average Hours per Week Employed, by Quarter						
1***	7.5	11.7	-4.3***	5.5	-5.7***	-50.9
2**	9.7	15.6	-5.9***	7.3	-7.9***	-51.8
3**	13.0	17.8	-4.8***	11.1	-6.3***	-36.3
4	16.0	19.4	-3.4***	14.4	-4.5***	-23.6
5	18.5	20.3	-1.8***	17.6	-2.4***	-12.1
6	20.6	21.7	-1.1*	20.1	-1.4*	-6.7
7	22.5	22.8	-0.2	22.4	-0.3	-1.3
8*	24.7	23.7	1.0*	24.5	1.4*	6.0
9	26.1	25.7	0.4	26.0	0.6	2.2
10	27.2	26.3	0.9	27.7	1.2	4.6
Average Earnings per Week, by Quarter (in 1998 Dollars)						
1**	47.3	73.7	-26.4***	34.2	-35.1***	-50.6
2***	64.1	99.9	-35.8***	47.4	-47.6***	-50.1
3**	86.8	113.2	-26.4***	71.9	-35.1***	-32.8
4***	105.2	123.7	-18.5***	92.6	-24.6***	-21.0
5	127.6	137.4	-9.8**	120.0	-13.0**	-9.8
6	150.0	151.8	-1.9	145.0	-2.5	-1.7
7	167.3	163.5	3.8	164.9	5.0	3.2
8	184.5	171.5	12.9**	181.0	17.2**	10.5
9	197.7	186.9	10.9**	195.2	14.4**	8.0
10	205.8	192.7	13.1**	207.4	17.4**	9.2
Average Total Earnings per Week (in 1998 Dollars)	130.7	139.8	-9.2***	124.3	-12.2***	-8.9

TABLE D.6 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Average Hourly Wage in the Most Recent Job in Quarter 10 (in Dollars)	7.3	7.1	0.2**	7.2	0.3**	3.6
Job Benefits Available in the Most Recent Job in Quarter 10 (Percentage)						
Health insurance	52.4	49.4	3.0**	53.4	4.0**	8.1
Paid sick leave	42.7	40.1	2.6*	43.7	3.4*	8.5
Paid vacation	56.7	55.7	1.0	56.8	1.3	2.4
Retirement or pension benefits	43.4	41.0	2.4	44.8	3.2	7.8
Sample Size	**4,028**	**2,811**	**6,839**	**2,989**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the two gender subgroups.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impact per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE D.7

IMPACTS ON EMPLOYMENT AND EARNINGS FOR FEMALES

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Employed, by Quarter						
1	30.1	39.2	-9.1***	24.9	-13.1***	-34.5
2*	31.6	43.9	-12.3***	24.6	-17.7***	-41.9
3	40.2	48.9	-8.7***	35.3	-12.6***	-26.2
4	47.0	53.8	-6.7***	44.4	-9.7***	-17.9
5	48.8	54.2	-5.4***	46.7	-7.8***	-14.3
6	49.0	52.5	-3.5**	48.4	-5.0**	-9.4
7	52.3	53.2	-0.9	52.2	-1.3	-2.5
8	56.8	55.2	1.5	57.3	2.2	4.0
9	60.2	57.5	2.7*	61.6	3.9*	6.7
10	62.7	60.2	2.5*	63.7	3.5*	5.9
Average Number of Jobs	2.3	2.4	-0.1*	2.3	-0.1*	-5.3
Average Percentage of Weeks Employed, by Quarter						
1	18.0	27.2	-9.2***	13.0	-13.3***	-50.5
2*	23.0	33.7	-10.7***	16.6	-15.4***	-48.1
3	29.6	37.9	-8.3***	24.3	-11.9***	-32.9
4	34.5	40.1	-5.6***	31.3	-8.1***	-20.5
5	36.6	41.8	-5.3***	34.1	-7.6***	-18.1
6	39.3	42.6	-3.2**	38.1	-4.6**	-10.9
7	43.1	44.2	-1.1	42.8	-1.6	-3.6
8	46.0	46.5	-0.4	45.9	-0.6	-1.4
9	50.0	47.6	2.3*	50.6	3.4*	7.2
10	51.4	48.8	2.6*	51.9	3.7*	7.8
Average Hours per Week Employed, by Quarter						
1***	6.7	10.1	-3.4***	4.8	-4.9***	-50.3
2**	9.0	12.9	-3.9***	6.5	-5.6***	-46.3
3**	11.7	14.5	-2.9***	9.5	-4.1***	-30.3
4	13.6	15.2	-1.5***	12.4	-2.2***	-15.1
5	14.8	16.5	-1.7***	13.9	-2.4***	-15.0
6	16.4	17.5	-1.0*	15.9	-1.5*	-8.6
7	18.2	18.3	-0.2	18.1	-0.2	-1.2
8*	19.3	19.8	-0.5	19.4	-0.7	-3.6
9	20.8	19.9	0.9	21.1	1.3	6.6
10	21.2	20.0	1.2*	21.6	1.7*	8.5
Average Earnings per Week, by Quarter (in 1998 Dollars)						
1**	37.1	54.5	-17.4***	25.8	-25.1***	-49.3
2***	51.9	72.3	-20.3***	36.1	-29.2***	-44.8
3**	68.5	83.3	-14.9***	54.5	-21.4***	-28.2
4***	80.9	85.2	-4.3	71.6	-6.2	-8.0
5	94.2	98.2	-3.9	88.4	-5.6	-6.0
6	109.3	110.3	-1.0	105.3	-1.4	-1.4
7	122.4	116.3	6.1	121.6	8.8	7.8
8	129.6	128.2	1.4	130.1	2.0	1.6
9	140.1	130.0	10.1**	142.3	14.5**	11.3
10	144.1	131.2	12.9***	147.3	18.5***	14.4
Average Total Earnings per Week (in 1998 Dollars)	94.8	99.3	-4.5	89.9	-6.5	-6.7

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TABLE D.7 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Average Hourly Wage in the Most Recent Job in Quarter 10 (in Dollars)	6.7	6.3	0.3***	6.7	0.5***	8.1
Job Benefits Available in the Most Recent Job in Quarter 10 (Percentage)						
Health insurance	45.9	46.4	-0.5	44.7	-0.7	-1.6
Paid sick leave	39.7	35.9	3.8**	39.8	5.5**	16.0
Paid vacation	54.2	52.0	2.2	54.1	3.2	6.2
Retirement or pension benefits	37.1	33.3	3.8*	36.2	5.5*	17.9
Sample Size	**3,283**	**1,665**	**4,948**	**2,257**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the two gender subgroups.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impact per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE D.8

IMPACTS ON EMPLOYMENT AND EARNINGS FOR MALE RESIDENTIAL DESIGNEES

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Employed, by Quarter						
1	32.4	41.2	-8.8***	28.1	-11.6***	-29.3
2**	30.8	47.0	-16.2***	24.8	-21.4***	-46.3
3	40.3	52.6	-12.3***	35.9	-16.3***	-31.2
4	49.5	58.3	-8.8***	46.0	-11.6***	-20.2
5	54.4	58.3	-4.0***	52.9	-5.2***	-9.0
6	54.6	56.1	-1.5	53.6	-2.0	-3.7
7	57.7	58.1	-0.3	57.2	-0.5	-0.8
8	62.0	60.4	1.6	61.6	2.1	3.5
9	66.1	65.4	0.6	66.1	0.9	1.3
10	69.8	67.7	2.2*	70.7	2.9*	4.2
Average Number of Jobs	2.5	2.6	0.0	2.5	-0.1	-2.3
Average Percentage of Weeks Employed, by Quarter						
1	18.1	28.3	-10.2***	13.8	-13.5***	-49.4
2**	22.4	36.5	-14.1***	17.2	-18.6***	-51.9
3	29.8	40.8	-11.0***	25.5	-14.6***	-36.4
4*	36.1	44.6	-8.6***	32.7	-11.3***	-25.7
5	41.3	45.3	-4.1***	39.3	-5.4***	-12.0
6	44.9	46.9	-2.0*	43.8	-2.6*	-5.7
7	48.2	49.3	-1.1	47.8	-1.4	-2.9
8	52.4	51.4	1.0	51.8	1.3	2.6
9	55.2	55.4	-0.1	54.9	-0.2	-0.3
10	58.6	57.0	1.6	59.2	2.2	3.8
Average Hours per Week Employed, by Quarter						
1	7.3	11.5	-4.3***	5.3	-5.6***	-51.3
2***	9.5	15.6	-6.1***	7.2	-8.0***	-52.9
3**	12.8	17.7	-4.8***	10.9	-6.4***	-37.0
4**	15.9	19.3	-3.4***	14.3	-4.5***	-24.0
5	18.3	20.2	-1.8***	17.4	-2.4***	-12.1
6	20.6	21.6	-1.0*	20.1	-1.4*	-6.4
7	22.6	22.7	-0.1	22.4	-0.1	-0.5
8	24.7	23.6	1.1*	24.4	1.4*	6.1
9	26.1	25.5	0.6	25.9	0.8	3.1
10	27.3	26.2	1.1*	27.7	1.4*	5.4
Average Earnings per Week, by Quarter (in 1998 Dollars)						
1	46.1	72.4	-26.3***	33.3	-34.8***	-51.1
2***	62.5	99.4	-36.9***	45.7	-48.8***	-51.6
3**	85.3	112.1	-26.8***	70.3	-35.5***	-33.6
4***	104.0	122.7	-18.7***	90.9	-24.7***	-21.4
5	126.9	136.5	-9.5**	119.0	-12.6**	-9.6
6	149.4	151.0	-1.7	144.3	-2.2	-1.5
7	167.3	162.3	4.9	164.6	6.5	4.1
8	184.0	171.1	12.9**	180.2	17.1**	10.5
9	197.3	185.6	11.8**	194.3	15.6**	8.7
10	206.0	191.6	14.4***	207.4	19.1***	10.1

TABLE D.8 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Average Total Earnings per Week (in 1998 Dollars)	130.2	139.1	-8.9***	123.6	-11.8***	-8.7
Average Hourly Wage in the Most Recent Job in Quarter 10 (in Dollars)	7.3	7.1	0.2*	7.2	0.2*	3.5
Job Benefits Available in the Most Recent Job in Quarter 10 (Percentage)						
Health insurance	52.3	49.6	2.7*	53.4	3.5*	7.1
Paid sick leave	42.5	40.2	2.2	43.6	2.9	7.2
Paid vacation	56.6	56.1	0.5	56.7	0.7	1.2
Retirement or pension benefits	42.8	41.0	1.8	44.4	2.4	5.7
Sample Size	**3,633**	**2,592**	**6,225**	**2,712**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the three subgroups of residential designees.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impact per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE D.9

IMPACTS ON EMPLOYMENT AND EARNINGS FOR FEMALE RESIDENTIAL DESIGNEES WITHOUT CHILDREN

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Employed, by Quarter						
1	31.0	41.3	-10.3***	25.4	-14.1***	-35.7
2**	30.0	46.7	-16.7***	22.6	-22.8***	-50.2
3	39.6	51.2	-11.6***	34.6	-15.9***	-31.4
4	47.4	57.3	-9.9***	44.4	-13.5***	-23.3
5	49.4	56.6	-7.2***	47.1	-9.8***	-17.3
6	49.1	54.0	-4.9**	48.2	-6.7**	-12.1
7	52.9	54.6	-1.7	52.7	-2.3	-4.2
8	57.6	55.6	2.0	58.3	2.8	5.0
9	60.7	58.3	2.5	62.1	3.4	5.7
10	62.1	60.7	1.4	62.8	2.0	3.2
Average Number of Jobs	2.4	2.5	-0.1*	2.4	-0.2*	-6.7
Average Percentage of Weeks Employed, by Quarter						
1	17.6	28.6	-11.0***	12.1	-15.0***	-55.3
2**	21.1	36.5	-15.4***	14.9	-21.0***	-58.5
3	28.9	39.8	-10.9***	23.6	-14.8***	-38.6
4*	34.0	42.6	-8.7***	30.5	-11.8***	-27.9
5	36.2	43.5	-7.3***	33.5	-10.0***	-23.0
6	38.9	43.6	-4.7***	37.8	-6.4***	-14.5
7	43.5	45.2	-1.7	43.0	-2.4	-5.2
8	46.7	46.6	0.1	46.5	0.1	0.2
9	49.9	48.0	1.9	50.6	2.6	5.3
10	50.7	49.0	1.7	50.9	2.3	4.8
Average Hours per Week Employed, by Quarter						
1	6.6	10.4	-3.8***	4.5	-5.2***	-54.0
2***	8.4	13.8	-5.4***	6.0	-7.4***	-55.0
3**	11.5	15.2	-3.7***	9.4	-5.1***	-35.1
4**	13.6	16.1	-2.4***	12.3	-3.3***	-21.2
5	14.6	17.4	-2.8***	13.6	-3.8***	-21.9
6	16.1	18.2	-2.1**	15.7	-2.9**	-15.4
7	18.4	18.9	-0.5	18.2	-0.7	-3.8
8	19.5	20.2	-0.6	19.7	-0.9	-4.1
9	20.7	20.3	0.4	21.1	0.5	2.4
10	21.1	20.0	1.1	21.4	1.5	7.3
Average Earnings per Week, by Quarter (in 1998 Dollars)						
1	34.3	54.9	-20.6***	22.0	-28.0***	-56.0
2***	47.3	75.7	-28.4***	32.0	-38.6***	-54.7
3**	66.3	84.9	-18.6***	52.4	-25.3***	-32.6
4***	79.3	87.6	-8.3*	69.3	-11.3*	-14.0
5	90.6	99.9	-9.3*	83.8	-12.6*	-13.1
6	105.7	111.7	-5.9	101.3	-8.1	-7.4
7	122.2	117.2	5.0	120.2	6.8	6.0
8	129.9	127.9	2.0	129.9	2.8	2.2
9	137.9	128.8	9.1	140.2	12.4	9.7
10	141.7	128.1	13.6**	144.0	18.5**	14.7

TABLE D.9 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Average Total Earnings per Week (in 1998 Dollars)	92.1	100.0	-7.8**	86.9	-10.7**	-10.9
Average Hourly Wage in the Most Recent Job in Quarter 10 (in Dollars)	6.6	6.2	0.4***	6.7	0.6***	9.6
Job Benefits Available in the Most Recent Job in Quarter 10 (Percentage)						
Health insurance	44.5	42.1	2.4	42.8	3.2	8.1
Paid sick leave	39.3	33.9	5.4**	39.2	7.3**	22.9
Paid vacation	53.1	47.9	5.3**	52.3	7.2**	15.9
Retirement or pension benefits	36.9	30.7	6.2**	36.3	8.5**	30.4
Sample Size	**1,830**	**941**	**2,771**	**1,347**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the three subgroups of residential designees.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impact per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE D.10

IMPACTS ON EMPLOYMENT AND EARNINGS FOR FEMALE RESIDENTIAL DESIGNEES WITH CHILDREN

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Employed, by Quarter						
1	25.5	34.3	-8.8**	19.9	-13.5**	-40.3
2**	31.4	37.0	-5.6	24.7	-8.6	-25.8
3	36.8	41.6	-4.8	34.2	-7.4	-17.8
4	42.0	47.4	-5.5	41.2	-8.4	-16.9
5	43.5	48.9	-5.4	41.9	-8.3	-16.5
6	45.6	45.2	0.4	45.9	0.6	1.4
7	48.1	44.1	4.0	48.5	6.1	14.3
8	52.4	52.4	-0.1	52.7	-0.1	-0.2
9	57.4	55.9	1.5	57.7	2.3	4.1
10	60.1	59.7	0.3	61.8	0.5	0.8
Average Number of Jobs	2.1	2.2	-0.1	2.1	-0.2	-9.2
Average Percentage of Weeks Employed, by Quarter						
1	13.8	23.3	-9.4***	9.4	-14.4***	-60.5
2**	22.1	27.0	-4.9	15.5	-7.5	-32.7
3	27.3	31.0	-3.7	22.7	-5.7	-20.0
4*	33.2	32.9	0.3	32.7	0.5	1.4
5	34.2	36.6	-2.5	32.5	-3.8	-10.4
6	36.6	35.1	1.5	35.7	2.3	6.9
7	38.5	36.1	2.4	38.2	3.6	10.5
8	42.3	42.7	-0.4	42.8	-0.6	-1.4
9	48.1	45.9	2.2	48.6	3.3	7.3
10	48.6	48.8	-0.2	49.4	-0.4	-0.7
Average Hours per Week Employed, by Quarter						
1	5.4	9.8	-4.4***	3.8	-6.8***	-63.8
2***	8.8	10.4	-1.6	6.0	-2.5	-29.4
3**	11.1	12.0	-0.9	9.2	-1.3	-12.5
4**	13.5	12.5	0.9	12.9	1.4	12.4
5	14.5	14.2	0.3	13.5	0.5	3.9
6	16.0	14.1	1.8	15.5	2.8	22.1
7	16.8	14.9	1.9	16.5	2.9	21.7
8	18.2	17.9	0.3	18.4	0.4	2.4
9	20.4	19.1	1.3	20.7	1.9	10.4
10	20.2	20.1	0.2	20.9	0.3	1.4
Average Earnings per Week, by Quarter (in 1998 Dollars)						
1	32.2	53.9	-21.7***	25.4	-33.1***	-56.7
2***	54.0	59.3	-5.3	37.5	-8.1	-17.8
3**	68.2	65.0	3.3	54.7	5.0	10.1
4***	83.1	67.7	15.4	78.7	23.5	42.6
5	94.8	82.9	11.9	91.0	18.3	25.1
6	104.5	89.0	15.5	102.9	23.7	29.9
7	115.1	92.9	22.3	114.9	34.1	42.2
8	122.5	110.4	12.1	125.0	18.5	17.4
9	137.5	119.5	18.0	140.8	27.5	24.3
10	138.2	129.6	8.6	143.3	13.2	10.1

TABLE D.10 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Average Total Earnings per Week (in 1998 Dollars)	93.8	86.8	7.0	89.4	10.8	13.7
Average Hourly Wage in the Most Recent Job in Quarter 10 (in Dollars)	6.8	6.2	0.6**	6.8	0.9**	15.9
Job Benefits Available in the Most Recent Job in Quarter 10 (Percentage)						
Health insurance	46.9	55.7	-8.8	46.9	-13.5	-22.3
Paid sick leave	40.9	36.7	4.2	40.6	6.5	18.9
Paid vacation	57.3	57.1	0.2	57.4	0.2	0.4
Retirement or pension benefits	35.7	37.2	-1.5	35.1	-2.3	-6.2
Sample Size	**388**	**199**	**587**	**254**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the three subgroups of residential designees.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impact per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE D.11

IMPACTS ON EMPLOYMENT AND EARNINGS FOR MALE NONRESIDENTIAL DESIGNEES

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Employed, by Quarter						
1	38.7	45.3	-6.5	34.9	-9.2	-20.9
2	40.6	48.0	-7.4*	35.9	-10.5*	-22.6
3	46.8	52.1	-5.4	41.9	-7.6	-15.3
4	58.2	60.8	-2.6	56.0	-3.6	-6.1
5	56.7	57.4	-0.7	56.6	-1.0	-1.8
6	57.3	57.9	-0.6	57.5	-0.8	-1.4
7	60.7	61.7	-1.0	62.1	-1.4	-2.2
8	64.9	62.6	2.3	65.2	3.2	5.2
9	69.0	68.6	0.4	71.2	0.6	0.8
10*	69.0	72.0	-3.0	71.0	-4.3	-5.7
Average Number of Jobs	2.3	2.5	-0.2	2.3	-0.3	-11.4
Average Percentage of Weeks Employed, by Quarter						
1	26.1	34.0	-8.0**	22.2	-11.2**	-33.6
2	30.9	38.2	-7.3**	27.8	-10.3**	-27.0
3	37.6	44.7	-7.1*	33.9	-10.0*	-22.7
4	43.8	47.4	-3.6	41.9	-5.1	-10.9
5*	47.0	48.7	-1.6	47.2	-2.3	-4.6
6**	47.4	49.9	-2.5	46.8	-3.5	-7.0
7	50.7	53.4	-2.7	51.3	-3.8	-6.9
8	56.2	53.9	2.2	56.3	3.2	5.9
9	58.6	61.4	-2.8	59.0	-4.0	-6.4
10*	59.1	61.0	-1.9	59.6	-2.7	-4.4
Average Hours per Week Employed, by Quarter						
1	10.0	14.3	-4.3***	7.4	-6.1***	-45.4
2	12.6	16.5	-3.9**	10.1	-5.6**	-35.5
3	15.8	19.3	-3.5*	13.5	-4.9*	-26.5
4	18.2	20.8	-2.5	16.9	-3.6	-17.5
5**	20.2	21.9	-1.8	20.0	-2.5	-11.2
6***	21.0	22.6	-1.6	20.5	-2.3	-9.9
7	22.1	24.1	-2.1	22.0	-2.9	-11.7
8	25.1	24.3	0.8	25.0	1.1	4.6
9	26.5	28.1	-1.6	26.6	-2.3	-8.0
10	26.6	27.6	-1.1	27.0	-1.5	-5.4
Average Earnings per Week, by Quarter (in 1998 Dollars)						
1	63.9	90.4	-26.4**	47.6	-37.2**	-43.9
2	85.6	106.6	-21.0*	71.5	-29.6*	-29.3
3	106.5	126.2	-19.7	94.5	-27.7	-22.7
4	122.1	137.0	-14.9	117.4	-21.0	-15.2
5*	136.4	148.7	-12.4	133.9	-17.4	-11.5
6**	158.3	162.0	-3.7	154.9	-5.2	-3.3
7	168.1	178.9	-10.8	168.8	-15.2	-8.3
8	190.5	176.9	13.7	192.6	19.3	11.1
9	203.2	203.6	-0.4	207.7	-0.5	-0.2
10	203.2	206.9	-3.6	208.6	-5.1	-2.4

TABLE D.11 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Average Total Earnings per Week (in 1998 Dollars)	137.4	149.7	-12.3	134.3	-17.4	-11.5
Average Hourly Wage in the Most Recent Job in Quarter 10 (in Dollars)	7.4	7.1	0.3	7.5	0.4	5.2
Job Benefits Available in the Most Recent Job in Quarter 10 (Percentage)						
Health insurance*	54.5	47.0	7.5	54.2	10.5	24.1
Paid sick leave	46.1	38.7	7.4	44.6	10.4	30.5
Paid vacation	58.3	51.1	7.2	57.7	10.2	21.4
Retirement or pension benefits	51.9	40.9	11.1**	50.8	15.6**	44.2
Sample Size	**395**	**219**	**614**	**277**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the three subgroups of nonresidential designees.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impact per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE D.12

IMPACTS ON EMPLOYMENT AND EARNINGS FOR FEMALE NONRESIDENTIAL DESIGNEES WITHOUT CHILDREN

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Employed, by Quarter						
1	43.4	48.1	-4.7	39.8	-7.5	-15.9
2	47.9	51.3	-3.4	42.9	-5.4	-11.3
3	51.2	56.5	-5.3	47.3	-8.5	-15.3
4	56.8	57.8	-1.0	54.9	-1.7	-2.9
5	53.4	58.3	-4.9	53.8	-7.8	-12.7
6	52.7	60.2	-7.5*	55.3	-12.1*	-17.9
7	56.7	60.2	-3.6	54.8	-5.7	-9.5
8	60.6	57.6	3.0	59.0	4.8	8.9
9	60.3	57.9	2.5	60.5	3.9	7.0
10*	66.3	60.3	6.0	66.6	9.7	17.0
Average Number of Jobs	2.5	2.4	0.1	2.5	0.2	10.1
Average Percentage of Weeks Employed, by Quarter						
1	31.4	34.0	-2.6	27.4	-4.1	-13.0
2	39.4	38.5	0.9	34.1	1.5	4.6
3	41.1	45.8	-4.7	36.4	-7.6	-17.2
4	43.1	46.1	-3.0	39.4	-4.8	-11.0
5*	42.5	50.9	-8.4**	42.1	-13.5**	-24.2
6**	43.0	52.0	-9.1**	43.2	-14.6**	-25.2
7	47.2	51.2	-4.0	46.9	-6.4	-12.0
8	48.3	49.9	-1.6	46.0	-2.6	-5.3
9	51.1	49.7	1.4	49.3	2.2	4.7
10*	55.5	51.3	4.2	55.3	6.8	14.1
Average Hours per Week Employed, by Quarter						
1	11.7	13.0	-1.2	10.0	-2.0	-16.5
2	15.1	15.1	0.0	12.7	0.1	0.5
3	15.9	17.8	-1.9	13.7	-3.1	-18.3
4	16.1	17.3	-1.2	14.5	-2.0	-11.9
5**	16.5	19.5	-3.0*	16.8	-4.8*	-22.1
6***	17.5	21.2	-3.8**	17.6	-6.0**	-25.5
7	19.3	21.2	-1.8	19.8	-2.9	-12.9
8	20.2	20.5	-0.4	20.0	-0.6	-2.9
9	21.6	20.5	1.0	21.6	1.7	8.3
10	22.3	22.2	0.2	23.1	0.2	1.1
Average Earnings Per Week, by Quarter (in 1998 Dollars)						
1	65.7	68.7	-3.1	57.3	-4.9	-7.9
2	85.0	84.9	0.2	73.9	0.3	0.3
3	92.9	101.5	-8.6	80.6	-13.9	-14.7
4	95.9	103.4	-7.5	85.9	-12.0	-12.3
5*	105.1	124.1	-19.0	107.8	-30.6	-22.1
6**	114.4	139.4	-25.0*	115.5	-40.3*	-25.8
7	126.4	143.1	-16.8	127.1	-27.0	-17.5
8	131.8	145.3	-13.4	126.4	-21.6	-14.6
9	143.4	148.3	-4.9	138.4	-7.8	-5.4
10	152.1	156.4	-4.3	152.2	-6.9	-4.3

TABLE D.12 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Average Total Earnings per Week (in 1998 Dollars)	108.7	119.2	-10.5*	103.6	-16.9*	-14.0
Average Hourly Wage in the Most Recent Job in Quarter 10 (in Dollars)	6.6	6.8	-0.3	6.5	-0.5	-6.6
Job Benefits Available in the Most Recent Job in Quarter 10 (Percentage)						
Health insurance*	43.8	54.3	-10.5	48.7	-16.8	-25.7
Paid sick leave	37.2	39.5	-2.2	40.2	-3.6	-8.2
Paid vacation	53.8	61.2	-7.4	58.7	-11.9	-16.9
Retirement or pension benefits	38.4	36.5	1.8	39.9	3.0	8.0
Sample Size	**377**	**194**	**571**	**232**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the three subgroups of nonresidential designees.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impact per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE D.13

IMPACTS ON EMPLOYMENT AND EARNINGS FOR FEMALE NONRESIDENTIAL DESIGNEES WITH CHILDREN

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Employed, by Quarter						
1	23.6	29.7	-6.1**	18.9	-9.9**	-34.3
2	29.6	34.0	-4.4	23.9	-7.1	-22.8
3	39.6	40.9	-1.3	33.6	-2.1	-5.8
4	45.0	42.6	2.4	41.7	3.9	10.2
5	49.2	45.7	3.5	45.6	5.7	14.2
6	50.2	46.8	3.4	47.6	5.5	13.1
7	51.8	50.4	1.4	51.3	2.2	4.5
8	56.0	54.5	1.5	56.4	2.4	4.5
9	61.4	56.0	5.5*	63.1	8.8*	16.3
10*	66.1	58.8	7.3**	67.6	11.8**	21.2
Average Number of Jobs	2.1	2.1	0.0	2.1	0.1	2.8
Average Percentage of Weeks Employed, by Quarter						
1	16.3	21.0	-4.7**	12.5	-7.6**	-37.9
2	22.6	25.4	-2.8	16.6	-4.5	-21.5
3	28.5	31.2	-2.7	22.6	-4.3	-16.0
4	33.3	32.8	0.5	29.5	0.8	2.7
5*	37.4	33.9	3.5	34.0	5.6	19.6
6**	41.7	37.5	4.2	39.0	6.8	21.1
7	43.8	42.0	1.8	43.3	2.9	7.2
8	45.9	46.8	-0.9	45.9	-1.5	-3.1
9	51.9	45.8	6.1**	52.9	9.8**	22.8
10*	55.1	46.6	8.5***	56.9	13.7***	31.8
Average Hours per Week Employed, by Quarter						
1	6.1	7.5	-1.4	4.5	-2.3	-33.4
2	8.2	9.5	-1.2	5.7	-2.0	-25.5
3	10.6	12.0	-1.4	8.5	-2.3	-21.3
4	12.6	12.6	0.0	11.3	-0.1	-0.7
5**	15.0	13.1	1.9	13.8	3.1	28.6
6***	17.5	14.5	2.9**	16.3	4.7**	40.9
7	17.9	16.8	1.2	17.8	1.9	11.6
8	18.8	19.1	-0.3	18.7	-0.5	-2.7
9	21.2	17.9	3.3**	21.3	5.3**	33.1
10	21.9	18.4	3.5***	22.6	5.6***	32.7
Average Earnings per Week, by Quarter (in 1998 Dollars)						
1	37.6	44.8	-7.2	27.4	-11.5	-29.6
2	50.4	59.8	-9.4	33.6	-15.2	-31.1
3	64.0	81.5	-17.5**	50.1	-28.1**	-35.9
4	78.0	80.3	-2.3	69.0	-3.7	-5.1
5*	102.3	88.3	13.9	96.6	22.4	30.2
6**	125.6	102.6	22.9**	120.7	36.9**	44.0
7	128.5	114.0	14.5	131.0	23.4	21.7
8	134.9	130.5	4.3	137.6	7.0	5.3
9	151.0	124.9	26.1**	155.8	42.0**	36.9
10	156.4	128.4	28.0**	165.2	45.1**	37.5

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TABLE D.13 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Average Total Earnings per Week (in 1998 Dollars)	99.7	93.0	6.7	96.8	10.8	12.6
Average Hourly Wage in the Most Recent Job in Quarter 10 (in Dollars)	7.0	6.7	0.3	7.1	0.5	7.3
Job Benefits Available in the Most Recent Job in Quarter 10 (Percentage)						
Health insurance*	52.1	52.3	-0.2	50.1	-0.4	-0.7
Paid sick leave	41.9	42.0	0.0	42.0	-0.1	-0.2
Paid vacation	56.4	59.2	-2.8	57.8	-4.5	-7.2
Retirement or pension benefits	38.5	39.2	-0.7	35.2	-1.1	-3.0
Sample Size	**666**	**317**	**983**	**412**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the three subgroups of nonresidential designees.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impact per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE D.14

KEY EMPLOYMENT AND EARNINGS OUTCOMES, BY HIGH SCHOOL CREDENTIAL STATUS, ARREST HISTORY, RACE AND ETHNICITY, AND APPLICATION DATE

	Percentage Employed in Quarter 10		Percentage of Weeks Employed in Quarter 10		Hours Per Week Employed in Quarter 10		Earnings Per Week in Quarter 10		Hourly Wage on Most Recent Job in Quarter 10	
Subgroup	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Eligible Applicant[b]
Educational Attainment at Random Assignment										
Had high school diploma or GED	75.7	0.2	66.3	0.4	28.7	0.1	209.2	6.7	7.13	0.27
Had no high school credential	61.5	3.8***	50.0	3.5***	22.2	1.8***	154.8	21.5***	6.70	0.3
(P-value)[c]		.181		.234		.203		.190		.716
Arrest History at Random Assignment										
Never arrested	64.9	2.9**	54.5	2.0	23.8	1.1	164.9	17.1***	6.69	0.31
Ever arrested for nonserious crimes only	66.9	1.9	53.6	4.1	23.5	2.9**	173.8	21.6	7.08	0.09
Ever arrested for serious crimes[d]	69.8	-15.0**	56.6	-8.6	27.2	-5.2*	198.9	-33.0	7.13	0.17
(P-value)[c]		.016**		.141		.058*		.187		.502
Race and Ethnicity										
White non-Hispanic	73.6	3.5	62.0	3.5	28.6	2.4*	207.1	32.2***	7.02	0.33***
Black non-Hispanic	59.6	3.6**	48.2	3.9**	20.9	1.5*	142.1	15.0**	6.52	0.31***
Hispanic	65.1	0.8	55.0	0.3	23.8	0.5	172.0	10.3	7.08	0.03
Other[e]	66.3	-1.5	57.5	-5.1	24.6	-1.7	178.2	-5.1	7.11	0.06
(P-value)[c]		.648		.200		.386		.317		.465
Job Corps Application Date and the New Job Corps Policies										
Prior to 3/1/95 (before ZT)	63.5	-0.9	53.5	0.3	24.4	0.2	171.5	13.6	6.90	0.20
On or after 3/1/95 (after ZT)	65.2	3.9***	53.9	3.2**	23.6	1.7***	166.6	18.8***	6.80	0.26***
(P-value)[c]		.113		.302		.306		.662		.755

SOURCE: Baseline, and 12-month and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per Job Corps participant are measured as the estimated impact per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Figures are p-values from tests to jointly test for differences in program impacts across levels of the subgroup.

[d] Serious crimes include aggravated assault, murder, robbery, and burglary.

[e] This group includes American Indians, Alaskan Natives, Asians, and Pacific Islanders.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

APPENDIX E

SUPPLEMENTARY TABLES TO CHAPTER VII: IMPACTS ON PUBLIC ASSISTANCE OUTCOMES

TABLE E.1

IMPACTS ON OTHER SOURCES OF INCOME

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Percentage Received Unemployment Insurance (UI) Benefits During the 30 Months After Random Assignment	2.6	3.7	-1.1***	2.2	-1.6***	-41.9
Average Number of Weeks Ever Received UI Benefits	0.3	0.5	-0.2***	0.3	-0.3***	-49.4
Average Amount of UI Benefits Ever Received (in Dollars)	37.3	61.0	-23.7***	31.3	-32.5***	-50.9
Percentage Received Child Support						
All months before 30-month interview	4.3	4.0	0.3	3.6	0.3	10.6
Before 12-month interview	1.7	1.7	0.0	1.5	0.0	-3.1
Between 12- and 30-month interviews	3.4	3.2	0.2	2.9	0.3	11.5
Average Amount of Child Support Ever Received (in Dollars)	55.7	58.4	-2.7	51.4	-3.7	-6.8
Percentage Ever Received Income from Friends						
All months before 30-month interview	18.3	18.8	-0.5	18.3	-0.7	-3.5
Before 12-month interview	11.3	10.8	0.5	11.6	0.7	6.3
Between 12- and 30-month interviews	9.3	9.8	-0.5	9.2	-0.7	-7.5
Average Amount of Income Ever Received from Friends (in Dollars)	186.8	165.5	21.4	185.7	29.3	18.8
Percentage Received Other Income						
All months before 30-month interview	10.9	11.2	-0.3	10.9	-0.5	-4.0
Before 12-month interview	6.3	6.8	-0.5	6.6	-0.7	-9.8
Between 12- and 30-month interviews	5.2	5.6	-0.4	5.0	-0.5	-9.0
Average Amount of Other Income Ever Received (in Dollars)	161.5	155.9	5.6	148.4	7.7	5.5
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

TABLE E.1 *(continued)*

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[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE E.2

IMPACTS ON THE RECEIPT OF KEY TYPES OF PUBLIC ASSISTANCE FOR MALES

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Received Any Benefit (AFDC/TANF, Food Stamps, SSI/SSA, or GA), by Quarter After Random Assignment						
1	23.1	24.9	-1.8*	21.7	-2.4*	-9.8
2	13.1	16.3	-3.2***	11.6	-4.2***	-26.7
3	13.3	16.3	-3.0***	12.1	-4.0***	-24.7
4	14.3	17.1	-2.8***	13.3	-3.7***	-21.8
5	17.3	20.5	-3.2***	16.3	-4.2***	-20.5
6	10.3	13.0	-2.8***	9.5	-3.7***	-27.9
7	9.3	12.3	-3.0***	8.6	-4.0***	-31.6
8	9.2	11.9	-2.7***	8.2	-3.6***	-30.4
9	9.2	12.1	-2.9***	8.2	-3.9***	-32.0
10	9.8	12.9	-3.1***	9.2	-4.1***	-30.8
Percentage Received Any Benefits, by Period						
All months	33.8	37.5	-3.7***	32.5	-4.9***	-13.0
Months 1 to 12	26.1	29.2	-3.0***	24.8	-4.0***	-14.0
Months 13 to 24	20.8	24.5	-3.8***	19.5	-5.0***	-20.4
Months 25 to 30	10.6	14.0	-3.3***	9.8	-4.4***	-31.1
Average Number of Months Received Any Benefits, by Period						
All months	3.4	4.3	-0.9***	3.1	-1.2***	-26.9
Months 1 to 12	1.7	2.0	-0.4***	1.5	-0.5***	-23.5
Months 13 to 24	1.2	1.5	-0.3***	1.1	-0.4***	-28.1
Months 25 to 30	0.5	0.7	-0.2***	0.5	-0.2***	-30.9
Average Amount of Any Benefits Received, by Period (in Dollars)						
All months	1,187.2	1,490.7	-303.5***	1,038.1	-403.1***	-28.0
Months 1 to 12	564.7	696.7	-132.0***	494.5	-175.4***	-26.2
Months 13 to 24	420.2	533.0	-112.8***	367.6	-149.8***	-29.0
Months 25 to 30	198.9	257.3	-58.4***	175.4	-77.6***	-30.7
Percentage Received AFDC/TANF Benefits						
All months	18.1	19.0	-0.8	17.4	-1.1	-5.9
Months 1 to 12	15.3	15.5	-0.2	14.5	-0.3	-1.7
Months 13 to 24	8.0	9.3	-1.3*	7.5	-1.7*	-18.6
Months 25 to 30	3.3	4.4	-1.1**	3.2	-1.4**	-31.0
Average Number of Months Ever Received AFDC/TANF Benefits	1.3	1.5	-0.2*	1.2	-0.3*	-18.7
Average Amount of AFDC/TANF Benefits Ever Received (in Dollars)	377.3	454.1	-76.8**	339.4	-102.0**	-23.1
Percentage Received Food Stamp Benefits						
All months	19.4	23.8	-4.4***	18.1	-5.9***	-24.6
Months 1 to 12	13.4	16.4	-3.0***	12.0	-4.0***	-25.2
Months 13 to 24	13.0	15.1	-2.1**	11.9	-2.8**	-18.8
Months 25 to 30*	6.4	8.8	-2.4***	6.0	-3.2***	-34.9

TABLE E.2 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Average Number of Months Ever Received Food Stamp Benefits	1.9	2.3	-0.4***	1.7	-0.6***	-25.0
Average Amount of Food Stamp Benefits Ever Received (in Dollars)	360.6	425.9	-65.3**	313.4	-86.8**	-21.7
Covered by Public Health Insurance at the 30-Month Interview	22.9	24.7	-1.8*	22.3	-2.3*	-9.5
Percentage Ever Received General Assistance Benefits**	2.2	3.4	-1.1***	2.0	-1.5***	-43.1
Average Amount of General Assistance Benefits Ever Received (in Dollars)	44.3	62.4	-18.1	37.9	-24.1	-38.9
Percentage Ever Received SSI/SSA Benefits	7.0	8.2	-1.1*	6.6	-1.5*	-18.9
Average Amount of SSI/SSA Benefits Ever Received (in Dollars)	455.3	598.0	-142.7***	407.3	-189.5***	-31.8
Percentage Lived in a Public Housing Project at the 30-Month Interview	11.9	12.7	-0.8	12.0	-1.1	-8.3
Percentage Ever Received Child Support	0.4	0.6	-0.2	0.3	-0.3	-43.7
Sample Size	**4,028**	**2,811**	**6,839**	**2,989**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the three gender subgroups.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the differences between the weighted means for program and control group members divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

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TABLE E.3

IMPACTS ON THE RECEIPT OF KEY TYPES OF PUBLIC ASSISTANCE FOR FEMALES WITHOUT CHILDREN

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Received Any Benefit (AFDC/TANF, Food Stamps, SSI/SSA, or GA), by Quarter After Random Assignment						
1	31.4	32.7	-1.3	30.4	-1.8	-5.5
2	18.9	22.3	-3.4**	17.4	-4.7**	-21.3
3	19.5	24.4	-4.9***	18.2	-6.8***	-27.2
4	21.6	26.8	-5.1***	20.5	-7.1***	-25.8
5	29.1	32.1	-3.0*	27.1	-4.2*	-13.3
6	22.7	24.8	-2.2	21.0	-3.0	-12.5
7	21.1	25.2	-4.0***	19.5	-5.6***	-22.3
8	22.4	24.8	-2.4	21.3	-3.3	-13.6
9	24.3	26.4	-2.1	23.1	-2.9	-11.0
10	26.6	27.3	-0.6	25.1	-0.9	-3.4
Percentage Received Benefits, by Period After Random Assignment						
All months	53.3	55.7	-2.3	52.1	-3.2	-5.9
Months 1 to 12	37.5	40.0	-2.5	36.2	-3.5	-8.8
Months 13 to 24	36.4	40.2	-3.8**	34.6	-5.3**	-13.3
Months 25 to 30	28.5	29.2	-0.7	27.2	-1.0	-3.5
Average Number of Months Received Benefits, by Period						
All months	6.5	7.3	-0.9**	6.1	-1.2**	-16.3
Months 1 to 12	2.4	2.9	-0.5***	2.3	-0.7***	-22.7
Months 13 to 24	2.6	2.9	-0.3**	2.4	-0.5**	-16.1
Months 25 to 30	1.4	1.5	-0.1	1.3	-0.1	-8.5
Average Amount of Benefits Received, by Period (in Dollars)						
All months	2,142.3	2,555.2	-413.0***	2,035.8	-573.5***	-22.0
Months 1 to 12	740.5	945.0	-204.6***	701.4	-284.1***	-28.8
Months 13 to 24	882.1	1037.1	-155.0**	833.2	-215.3**	-20.5
Months 25 to 30	506.5	561.6	-55.1	487.6	-76.5	-13.6
Percentage Received AFDC/TANF Benefits						
All months	34.3	35.1	-0.8	34.2	-1.1	-3.2
Months 1 to 12	22.6	23.9	-1.3	22.5	-1.8	-7.4
Months 13 to 24	19.3	22.0	-2.8*	18.9	-3.8*	-16.8
Months 25 to 30	16.3	17.3	-0.9	16.6	-1.3	-7.3
Average Number of Months Ever Received AFDC/TANF Benefits	3.2	3.7	-0.5*	3.2	-0.7*	-17.1
Average Amount of AFDC/TANF Benefits Ever Received (in Dollars)	884.7	1,063.0	-178.3**	871.5	-247.7**	-22.1
Percentage Received Food Stamp Benefits						
All months	37.6	39.5	-1.9	36.0	-2.6	-6.8
Months 1 to 12	20.9	24.0	-3.1**	19.2	-4.3**	-18.4
Months 13 to 24	27.0	28.3	-1.3	25.5	-1.7	-6.4
Months 25 to 30*	21.2	21.0	0.2	19.9	0.3	1.4

TABLE E.3 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Average Number of Months Ever Received Food Stamp Benefits	4.2	4.7	-0.5*	3.9	-0.7*	-15.3
Average Amount of Food Stamp Benefits Ever Received (in Dollars)	742.5	795.8	-53.3	682.0	-74.0	-9.8
Covered by Public Health Insurance at the 30-Month Interview	40.6	40.1	0.5	40.2	0.7	1.7
Percentage Ever Received General Assistance Benefits**	3.5	3.1	0.3	3.1	0.5	18.3
Average Amount of General Assistance Benefits Ever Received (in Dollars)	66.2	67.7	-1.5	71.1	-2.1	-2.8
Percentage Ever Received SSI/SSA Benefits	7.9	10.9	-3.0***	7.4	-4.2***	-35.9
Average Amount of SSI/SSA Benefits Ever Received (in Dollars)	498.3	714.8	-216.5***	460.5	-300.7***	-39.5
Percentage Lived in a Public Housing Project at the 30-Month Interview	15.8	16.5	-0.6	16.3	-0.9	-5.2
Percentage Ever Received Child Support	3.7	3.1	0.6	3.5	0.8	31.4
Sample Size	**2,207**	**1,135**	**3,342**	**1,579**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the three gender subgroups.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the differences between the weighted means for program and control group members divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE E.4

IMPACTS ON THE RECEIPT OF KEY TYPES OF PUBLIC ASSISTANCE FOR FEMALES WITH CHILDREN

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Received Any Benefit (AFDC/TANF, Food Stamps, SSI/SSA, or GA), by Quarter After Random Assignment						
1	75.6	76.1	-0.5	76.8	-0.8	-1.1
2	70.5	72.0	-1.5	71.9	-2.4	-3.2
3	71.1	71.9	-0.8	72.5	-1.3	-1.7
4	73.5	74.1	-0.6	74.3	-0.9	-1.2
5	77.5	75.3	2.2	79.5	3.4	4.5
6	63.8	66.9	-3.1	63.3	-4.8	-7.1
7	61.7	64.9	-3.2	60.5	-5.0	-7.7
8	59.7	64.4	-4.7*	58.3	-7.3	-11.2*
9	59.0	64.1	-5.1*	57.9	-8.0	-12.1*
10	59.6	65.2	-5.7**	58.4	-8.9	-13.3**
Percentage Received Benefits, by Period After Random Assignment						
All months	89.2	90.4	-1.3	89.6	-2.0	-2.2
Months 1 to 12	81.3	82.8	-1.5	81.6	-2.3	-2.7
Months 13 to 24	82.0	82.5	-0.6	83.2	-0.9	-1.1
Months 25 to 30	62.2	67.6	-5.3**	61.4	-8.4	-12.0**
Average Number of Months Received Benefits, by Period						
All months	19.2	19.9	-0.7	19.2	-1.1	-5.5
Months 1 to 12	8.4	8.5	-0.1	8.6	-0.2	-2.3
Months 13 to 24	7.4	7.7	-0.2	7.4	-0.4	-4.9
Months 25 to 30	3.5	3.8	-0.3**	3.4	-0.5	-12.3**
Average Amount of Benefits Received, by Period (in Dollars)						
All months	9,195.1	9,422.5	-227.3	9,237.2	-357.3	-3.7
Months 1 to 12	4,097.0	4,043.9	53.1	4,258.7	83.4	2.0
Months 13 to 24	3,520.1	3,623.9	-103.9	3,472.7	-163.2	-4.5
Months 25 to 30	1,635.8	1,751.2	-115.4	1,581.2	-181.3	-10.3
Percentage Received AFDC/TANF Benefits						
All months	78.6	79.6	-0.9	79.9	-1.5	-1.8
Months 1 to 12	70.0	71.0	-1.1	71.6	-1.7	-2.3
Months 13 to 24	66.5	67.6	-1.1	68.4	-1.7	-2.4
Months 25 to 30	46.5	48.5	-2.0	45.7	-3.2	-6.4
Average Number of Months Ever Received AFDC/TANF Benefits	14.7	14.9	-0.1	15.0	-0.2	-1.2
Average Amount of AFDC/TANF Benefits Ever Received (in Dollars)	4,631.9	4,522.3	109.5	4,736.5	172.1	3.8
Percentage Received Food Stamp Benefits						
All months	82.1	84.3	-2.2	81.6	-3.4	-4.0
Months 1 to 12	71.6	73.8	-2.2	70.7	-3.5	-4.7
Months 13 to 24	75.0	75.7	-0.7	74.9	-1.2	-1.5
Months 25 to 30*	53.4	59.4	-6.1**	51.4	-9.5	-15.6**

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TABLE E.4 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Average Number of Months Ever Received Food Stamp Benefits	16.6	17.4	-0.8	16.3	-1.3	-7.3
Average Amount of Food Stamp Benefits Ever Received (in Dollars)	3,680.5	3,849.4	-168.9	3,573.2	-265.4	-6.9
Covered by Public Health Insurance at the 30-Month Interview	70.6	71.4	-0.8	70.2	-1.3	-1.8
Percentage Ever Received General Assistance Benefits**	2.7	2.0	0.7	2.9	1.2	67.1
Average Amount of General Assistance Benefits Ever Received (in Dollars)	84.8	67.0	17.8	107.6	28.0	35.3
Percentage Ever Received SSI/SSA Benefits	9.4	10.1	-0.7	10.2	-1.0	-9.3
Average Amount of SSI/SSA Benefits Ever Received (in Dollars)	803.7	941.9	-138.2	869.2	-217.1	-20.0
Percentage Lived in a Public Housing Project at the 30-Month Interview	28.0	30.7	-2.7	27.0	-4.3	-13.7
Percentage Ever Received Child Support	17.3	16.9	0.4	17.0	0.6	3.6
Sample Size	**1,054**	**516**	**1,570**	**666**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the three gender subgroups.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the differences between the weighted means for program and control group members divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE E.5

IMPACTS ON THE RECEIPT OF KEY TYPES OF PUBLIC ASSISTANCE, BY RESIDENTIAL DESIGNATION STATUS, AGE, HIGH SCHOOL CREDENTIAL STATUS, ARREST HISTORY, RACE AND ETHNICITY, AND APPLICATION DATE

	Percentage Received AFDC/TANF Benefits		Average Amount of AFDC/TANF Benefits Ever Received (in Dollars)		Percentage Received Food Stamp Benefits		Average Amount of Food Stamp Benefits Ever Received (in Dollars)		Percentage Covered by Public Health Insurance at the 30-Month Interview	
Subgroup	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]
Residential Designees										
Males	18.8	-1.1	447.2	-117.9**	23.7	-6.3***	417.6	-102.6***	24.3	-2.5*
Females without children	34.3	-0.4	1,038.0	-235.6**	38.5	-2.3	773.2	-78.3	40.3	0.6
Females with children	76.5	-5.9	3,377.6	563.9	81.1	-8.3	3,316.1	-609.9	67.2	3.6
(P-value)[b]		.706		.266		.344		.412		.380
Nonresidential Designees										
Males	21.5	0.0	542.1	135.9	25.2	0.0	532.4	156.5	29.0	0.3
Females without children	40.2	-4.1	1,233.0	-332.0	46.3	-4.8	949.7	-20.1	38.5	0.9
Females with children	82.4	1.3	5,580.1	-308.3	87.2	0.6	4,334.0	-9.3	75.4	-6.2
(P-value)[b]		.539		.418		.780		.781		.586
Age at Application										
16 and 17	31.8	-1.6	987.8	-118.3	31.1	-3.6**	730.7	-73.3	35.8	-1.6
18 and 19	29.0	-1.2	979.6	-21.5	35.2	-2.6	847.7	-6.0	33.7	-0.4
20 to 24	31.3	1.2	1,445.3	-70.1	42.7	-5.3***	1,350.6	-192.3	34.1	-0.2
(P-value)[b]		.642		.631		.583		.570		.859
Educational Attainment at Random Assignment										
Had high school diploma or GED	26.9	-2.3	1,006.9	-64.1	37.0	-4.4**	914.1	-55.6	30.1	1.8
Had no high school credential	32.0	-0.4	1,137.6	-95.7	35.0	-3.7	938.2	-79.1	36.2	-1.8
(P-value)[b]		.522		.810		.424		.970		.217
Arrest History at Random Assignment										
Never arrested	31.2	-0.3	1,151.3	-67.8	36.0	-3.8	974.5	-56.8	35.4	0.0
Ever arrested	30.6	-2.1	971	-109.7	34.8	-5.6**	817.8	-84.3	33.2	-5.5**
(P-value)[b]		.536		.807		.610		.972		.070*
Race and Ethnicity										
White non-Hispanic	20.8	-4.5**	707.7	-212.5**	32.0	-9.9***	651.0	-234.7***	27.6	-3.8*
Black non-Hispanic	37.3	-0.9	1,320.2	-87.5	37.5	-2.4	1,138.2	-21.9	38.6	-0.3
Hispanic	29.5	2.4	1,135.9	109.0	35.5	-1.2	871.2	-13.1	33.5	2.4
Other[c]	27.9	7.9*	1,110.0	-29.2	35.2	-3.7	790.6	-52.5	36.9	0.7
(P-value)[b]		.040**		.466		.048**		.169		.394

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TABLE E.5 *(continued)*

Subgroup	Percentage Received AFDC/TANF Benefits		Average Amount of AFDC/TANF Benefits Ever Received (in Dollars)		Percentage Received Food Stamp Benefits		Average Amount of Food Stamp Benefits Ever Received (in Dollars)		Percentage Covered by Public Health Insurance at the 30-Month Interview	
	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]
Job Corps Application Date and the New Job Corps Policies										
Prior to 3/1/95 (before ZT)	32.2	-2.2	1,293.4	-509.0***	34.8	-4.9**	1,050.7	-342.6***	35.1	0.5
On or after 3/1/95 (after ZT)	30.3	-0.4	1,054.7	25.2	35.7	-4.3***	899.8	-13.4	34.5	-1.3
(P-value)[b]		.553		.001***		.849		.008***		.544

SOURCE: Baseline, and 12-month and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequa weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per program participant are measured as the difference between the weighted means for program and control group members divided by the proportion of eligible applicants in the program group who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[b] Figures are p-values from tests to jointly test for differences in program impacts across levels of the subgroup.

[c] This group includes American Indians, Alaskan Natives, Asians, and Pacific Islanders.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

APPENDIX F

SUPPLEMENTARY TABLES TO CHAPTER VII: IMPACTS ON CRIME-RELATED OUTCOMES

TABLE F.1

IMPACTS ON FINER CATEGORIES OF ARREST CHARGES

Category	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
Murder or Assault (Percentage with Charge)						
Murder	0.4	0.4	0.0	0.3	-0.1	-15.4
Aggravated assault	2.8	2.9	-0.1	2.9	-0.1	-2.6
Robbery	1.5	1.7	-0.2	1.4	-0.2	-15.0
Burglary	2.1	2.4	-0.3	1.8	-0.4	-19.2
Larceny, Theft, and Other Property Crimes (Percentage with Charge)						
Forgery or counterfeiting	0.4	0.8	-0.4	0.4	-0.6	-63.4
Larceny/theft	2.1	2.3	-0.2	2.0	-0.2	-11.0
Motor vehicle theft/carjacking	1.2	1.5	-0.3	0.9	-0.5	-33.6
Shoplifting	0.9	0.9	0.0	0.9	0.0	-1.8
Buying/receiving/possessing stolen property	1.0	1.2	-0.1	1.0	-0.2	-17.7
Vandalism	0.6	0.6	0.0	0.5	0.0	4.1
Drug-Law Violations (Percentage with Charge)						
Use or possession of drugs or drug equipment	4.0	5.0	-1.0	3.9	-1.4	-26.4
Sale or manufacture of drugs	1.6	1.7	-0.1	1.4	-0.1	-5.0
Other Personal Crimes (Percentage with Charge)						
Simple assault	3.1	3.4	-0.3	3.1	-0.4	-12.1
Family offenses	0.6	0.7	-0.1	0.6	-0.2	-25.7
Fighting	0.4	0.5	-0.2	0.3	-0.2	-40.7
Miscellaneous Crimes (Percentage with Charge)						
Disorderly conduct	2.2	3.1	-0.9	2.2	-1.3	-36.7
Liquor-related crimes	2.5	3.5	-0.9	2.5	-1.3	-33.3
Loitering or vagrancy or curfew violations	0.6	1.0	-0.3	0.6	-0.5	-43.0
Parole or probation violations	2.0	2.7	-0.7	1.4	-0.9	-40.3
Weapons offenses	1.9	1.9	0.0	1.8	0.0	1.3
Trespassing	1.3	1.6	-0.3	1.2	-0.4	-25.0
Having an outstanding warrant	0.6	0.8	-0.1	0.6	-0.2	-25.2
Obstruction of justice	1.9	2.2	-0.4	1.7	-0.5	-22.4
Other motor vehicle violations	2.6	3.4	-0.9	2.4	-1.2	-33.5
Smoking cigarettes under age	0.7	0.9	-0.2	0.6	-0.3	-33.4
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

TABLE F.1 *(continued)*

NOTES: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

Impact estimates are presented only for crimes committed by at least 15 program group members and 15 control group members.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE F.2

IMPACTS ON KEY CRIME OUTCOMES FOR 16- AND 17-YEAR-OLDS

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Quarter After Random Assignment						
1	3.4	5.0	-1.6***	2.4	-2.0***	-45.0
2	3.8	5.2	-1.5**	3.6	-1.9**	-34.2
3	5.5	6.3	-0.9	4.9	-1.1	-18.5
4	6.3	6.5	-0.1	5.5	-0.2	-2.9
5	4.8	5.5	-0.7	4.2	-0.9	-17.2
6	3.5	4.2	-0.7	3.4	-0.9	-20.9
7	4.2	4.3	-0.2	4.4	-0.2	-4.9
8	4.8	5.4	-0.6	4.6	-0.7	-13.6
9	5.4	5.7	-0.3	5.3	-0.4	-7.7
10	6.7	6.8	-0.1	6.3	-0.1	-1.8
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Period						
All months	31.4	35.1	-3.8***	29.3	-4.8***	-14.1
Months 1 to 12	16.0	18.6	-2.6**	13.8	-3.3**	-19.4
Months 13 to 24	14.8	16.1	-1.2	14.2	-1.6	-10.0
Months 25 to 30	11.1	11.3	-0.2	10.6	-0.3	-2.4
Average Number of Times Ever Arrested	0.5	0.6	-0.1**	0.5	-0.1**	-15.9
All Charges for Which Arrested (Percentages)						
Murder or assault	4.7	4.4	0.3	4.7	0.4	8.1
Robbery	2.1	2.6	-0.5	1.9	-0.7	-25.7
Burglary	3.2	3.5	-0.3	2.7	-0.3	-11.2
Larceny, vehicle theft, or other property crimes*	8.6	9.6	-1.0	7.6	-1.3	-14.2
Drug law violations	7.2	8.5	-1.3*	6.9	-1.7*	-19.4
Other personal crimes	5.3	5.8	-0.5	5.5	-0.7	-10.8
Other miscellaneous crimes	16.2	19.4	-3.2***	14.4	-4.0***	-21.9
Percentage Convicted, Pled Guilty, or Adjudged Delinquent During the 30 Months After Random Assignment	22.6	26.0	-3.4***	21.2	-4.4***	-17.1
Percentage Made a Deal or Plea-Bargained	11.1	13.1	-2.0**	9.8	-2.5**	-20.6
All Charges for Which Convicted (Percentages)						
Murder or Assault	2.1	2.3	-0.3	1.8	-0.3	-16.0
Robbery	1.4	2.2	-0.8**	1.0	-1.0**	-48.5
Burglary	2.0	2.5	-0.5	1.8	-0.6	-25.5
Larceny, vehicle theft, or other property crimes	6.2	5.9	0.3	5.6	0.3	6.1
Drug law violations	5.2	5.7	-0.5	4.6	-0.7	-12.7
Other personal crimes	3.0	3.3	-0.3	3.2	-0.4	-10.4
Other miscellaneous crimes	10.7	12.7	-2.0**	9.8	-2.6**	-20.8

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TABLE F.2 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Ever Served in Jail for Convictions	14.5	18.1	-3.6***	13.0	-4.6***	-26.0
Average Weeks in Jail for Convictions*	3.3	4.4	-1.1**	2.6	-1.4**	-34.3
Percentage Ever Put on Probation or Parole	13.8	15.3	-1.5	12.8	-1.9	-12.7
Sample Size	**2,958**	**1,905**	**4,863**	**2,286**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the three age groups.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE F.3

IMPACTS ON KEY CRIME OUTCOMES FOR 18- AND 19-YEAR-OLDS

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Quarter After Random Assignment						
1	2.1	3.5	-1.4***	1.3	-2.0***	-61.0
2	2.9	3.0	-0.1	2.7	-0.2	-7.3
3	3.3	4.8	-1.6**	3.3	-2.2**	-40.3
4	3.7	4.9	-1.2*	3.1	-1.6*	-34.4
5	4.3	3.9	0.4	3.8	0.5	15.3
6	2.1	2.8	-0.7	1.7	-0.9	-35.2
7	2.2	3.1	-0.9	2.1	-1.2	-37.2
8	2.6	2.9	-0.3	2.6	-0.4	-14.4
9	2.8	3.3	-0.5	2.6	-0.7	-22.3
10	3.7	5.4	-1.7**	3.5	-2.4**	-40.1
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Period						
All months	20.1	25.6	-5.5***	18.8	-7.9***	-29.5
Months 1 to 12	10.0	13.5	-3.5***	8.9	-5.0***	-36.1
Months 13 to 24	9.8	10.7	-0.9	9.2	-1.2	-11.9
Months 25 to 30	6.1	7.9	-1.8**	5.7	-2.6**	-30.8
Average Number of Times Ever Arrested	0.3	0.4	-0.1***	0.3	-0.1***	-29.1
All Charges for Which Arrested (Percentages)						
Murder or assault	2.6	2.6	0.0	2.7	0.0	0.5
Robbery	1.4	1.5	-0.1	1.2	-0.1	-10.7
Burglary	1.8	2.1	-0.3	1.4	-0.5	-24.1
Larceny, vehicle theft, or other property crimes*	4.4	6.1	-1.7**	3.6	-2.4**	-39.9
Drug law violations	4.2	4.5	-0.3	3.7	-0.4	-9.9
Other personal crimes	2.8	3.5	-0.8	2.7	-1.1	-28.7
Other miscellaneous crimes	11.4	15.2	-3.8***	10.8	-5.4***	-33.5
Percentage Convicted, Pled Guilty, or Adjudged Delinquent During the 30 Months After Random Assignment	14.9	18.9	-4.0***	13.9	-5.8***	-29.4
Percentage Made a Deal or Plea-Bargained	7.1	9.0	-1.8**	6.3	-2.6**	-29.3
All Charges for Which Convicted (Percentages)						
Murder or assault	1.2	1.3	-0.1	1.2	-0.1	-8.8
Robbery*	1.0	1.0	0.0	0.7	-0.1	-6.7
Burglary	1.2	1.4	-0.2	1.0	-0.3	-25.5
Larceny, vehicle theft, or other property crimes	3.1	4.4	-1.3**	2.5	-1.9**	-42.4
Drug law violations	3.2	3.3	0.0	2.9	0.0	-0.9
Other personal crimes	2.0	2.0	0.0	2.0	0.0	-1.9
Other miscellaneous crimes	7.6	9.8	-2.2**	7.2	-3.1**	-30.0

TABLE F.3 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Ever Served in Jail for Convictions	10.5	12.7	-2.2**	9.1	-3.1**	-25.5
Average Weeks in Jail for Convictions*	2.2	2.9	-0.6	1.9	-0.9	-32.1
Percentage Ever Put on Probation or Parole	7.7	10.0	-2.4**	6.5	-3.4**	-34.4
Sample Size	**2,304**	**1,420**	**3,724**	**1,598**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the three age groups.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE F.4

IMPACTS ON KEY CRIME OUTCOMES FOR 20- TO 24-YEAR-OLDS

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Quarter After Random Assignment						
1	1.9	2.4	-0.6	1.1	-0.9	-43.0
2	1.9	2.7	-0.8	1.2	-1.2	-50.4
3	2.1	2.3	-0.3	1.7	-0.4	-18.3
4	2.2	3.2	-1.1*	2.0	-1.6*	-45.2
5	2.8	2.4	0.4	2.4	0.7	37.5
6	2.1	1.9	0.1	1.9	0.2	10.1
7	2.1	2.1	0.0	1.8	0.0	2.2
8	1.8	2.5	-0.7	1.9	-1.1	-37.1
9	1.8	2.9	-1.1**	1.9	-1.6**	-45.0
10	2.5	3.5	-1.0*	2.1	-1.5*	-41.1
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Period						
All months	15.0	18.8	-3.8***	13.2	-5.6***	-30.0
Months 1 to 12	6.8	9.3	-2.5***	5.1	-3.7***	-42.0
Months 13 to 24	7.8	7.8	0.0	7.1	0.0	-0.1
Months 25 to 30	4.1	6.2	-2.1***	3.8	-3.2***	-45.8
Average Number of Times Ever Arrested	0.2	0.3	-0.1***	0.2	-0.1***	-34.2
All Charges for Which Arrested (Percentages)						
Murder or assault	1.7	2.5	-0.8	1.3	-1.1	-47.4
Robbery	0.8	0.5	0.3	0.7	0.4	172.0
Burglary	0.8	1.1	-0.3	0.6	-0.5	-46.3
Larceny, vehicle theft, or other property crimes*	3.6	3.1	0.5	3.6	0.7	24.0
Drug law violations	2.3	3.0	-0.8	2.0	-1.1	-36.0
Other personal crimes	3.1	3.8	-0.7	2.4	-1.1	-31.2
Other miscellaneous crimes	7.5	10.3	-2.8***	6.1	-4.2***	-40.8
Percentage Convicted, Pled Guilty, or Adjudged Delinquent During the 30 Months After Random Assignment	11.0	13.7	-2.7**	9.6	-4.0**	-29.5
Percentage Made a Deal or Plea-Bargained	5.8	6.8	-0.9	5.3	-1.4	-21.0
All Charges for Which Convicted (Percentages)						
Murder or assault	1.0	0.8	0.2	0.8	0.3	66.2
Robbery*	0.6	0.4	0.3	0.3	0.4	-496.6
Burglary	0.7	1.1	-0.4	0.7	-0.6	-46.8
Larceny, vehicle theft, or other property crimes	2.7	2.6	0.1	2.7	0.1	4.4
Drug law violations	1.8	2.1	-0.3	1.5	-0.4	-22.2
Other personal crimes	1.5	2.4	-0.9*	1.2	-1.4*	-52.7
Other miscellaneous crimes	5.0	7.0	-1.9**	4.0	-2.9**	-41.9

TABLE F.4 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Ever Served in Jail for Convictions	7.2	9.4	-2.1**	6.7	-3.1**	-32.0
Average Weeks in Jail for Convictions*	1.7	1.5	0.2	1.3	0.3	35.9
Percentage Ever Put on Probation or Parole	6.5	7.5	-1.0	5.6	-1.4	-20.1
Sample Size	**2,049**	**1,151**	**3,200**	**1,362**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the three age groups.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE F.5

IMPACTS ON KEY CRIME OUTCOMES FOR MALES

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Quarter After Random Assignment						
1	3.6	5.1	-1.4***	2.6	-1.9***	-42.4
2**	4.0	5.5	-1.5***	3.6	-2.0***	-35.8
3*	5.2	6.6	-1.5**	4.6	-1.9**	-29.6
4	6.4	7.5	-1.1*	5.7	-1.5*	-20.4
5	5.8	5.6	0.2	5.0	0.2	5.1
6	3.8	4.0	-0.2	3.6	-0.3	-7.7
7	4.3	4.6	-0.2	4.3	-0.3	-6.6
8*	4.6	5.5	-0.9*	4.6	-1.3*	-21.5
9	5.3	5.5	-0.2	5.2	-0.3	-5.4
10*	6.5	7.9	-1.4**	6.2	-1.8**	-22.5
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Period						
All months**	31.9	37.5	-5.6***	29.7	-7.5***	-20.0
Months 1 to 12***	16.1	20.2	-4.2***	13.9	-5.5***	-28.5
Months 13 to 24	15.9	16.6	-0.7	15.0	-0.9	-5.6
Months 25 to 30	10.8	12.2	-1.3*	10.4	-1.8*	-14.7
Average Number of Times Ever Arrested	0.6	0.6	-0.1***	0.5	-0.1***	-19.0
All Charges for Which Arrested (Percentages)						
Murder or assault	4.6	4.3	0.3	4.4	0.4	9.6
Robbery	2.4	2.7	-0.3	2.2	-0.4	-13.8
Burglary*	3.3	3.9	-0.6	2.9	-0.8	-22.3
Larceny, vehicle theft, or other property crimes	8.1	8.4	-0.4	7.2	-0.5	-6.2
Drug law violations	7.6	8.8	-1.2*	7.3	-1.6*	-18.3
Other personal crimes	4.9	5.8	-0.8	5.0	-1.1	-18.4
Other miscellaneous crimes***	17.3	22.0	-4.7***	15.5	-6.2***	-28.6
Percentage Convicted, Pled Guilty, or Adjudged Delinquent During the 30 Months After Random Assignment*	24.1	28.4	-4.3***	22.6	-5.7***	-20.2
Percentage Made a Deal or Plea-Bargained***	12.3	14.9	-2.6***	10.9	-3.5***	-24.4
All Charges for Which Convicted (Percentages)						
Murder or assault**	2.2	2.0	0.3	2.0	0.4	22.9
Robbery	1.7	2.0	-0.3	1.3	-0.4	-23.0
Burglary**	2.2	2.9	-0.7*	2.1	-1.0*	-31.8
Larceny, vehicle theft, or other property crimes	5.8	5.7	0.0	5.2	0.0	0.8
Drug law violations	5.5	6.1	-0.5	5.0	-0.7	-12.0
Other personal crimes	3.1	3.4	-0.3	3.2	-0.4	-11.5
Other miscellaneous crimes*	11.9	14.6	-2.8***	10.8	-3.7***	-25.4

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TABLE F.5 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Ever Served in Jail for Convictions**	16.6	20.2	-3.6***	15.1	-4.8***	-24.2
Average Weeks in Jail for Convictions***	4.0	5.0	-1.0**	3.3	-1.4**	-29.5
Percentage Ever Put on Probation or Parole	14.1	16.0	-1.9**	12.9	-2.5**	-16.3
Sample Size	**4,028**	**2,811**	**6,839**	**2,989**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the two gender groups.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE F.6

IMPACTS ON KEY CRIME OUTCOMES FOR FEMALES

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Quarter After Random Assignment						
1	1.0	2.0	-1.0***	0.5	-1.4***	-73.1
2**	1.4	1.4	0.1	1.4	0.1	7.4
3*	1.9	2.0	-0.1	2.1	-0.2	-9.0
4	1.5	1.6	-0.1	1.0	-0.1	-11.2
5	1.7	2.1	-0.4	1.5	-0.5	-25.8
6	1.1	1.9	-0.8**	0.9	-1.2**	-56.1
7	1.1	1.6	-0.5	1.1	-0.7	-39.2
8*	1.4	1.3	0.1	1.4	0.1	10.9
9	1.2	2.3	-1.1***	1.2	-1.6***	-56.5
10*	1.9	2.0	0.0	1.7	-0.1	-3.9
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Period						
All months**	11.1	13.4	-2.3**	10.2	-3.3**	-24.3
Months 1 to 12***	5.1	6.0	-0.9	4.4	-1.3	-22.5
Months 13 to 24	4.8	5.6	-0.9	4.4	-1.2	-21.6
Months 25 to 30	3.0	4.0	-1.0*	2.9	-1.4*	-33.4
Average Number of Times Ever Arrested	0.2	0.2	-0.1***	0.1	-0.1***	-35.3
All Charges for Which Arrested (Percentages)						
Murder or assault	1.3	1.9	-0.6	1.5	-0.9	-36.6
Robbery	0.2	0.2	0.0	0.1	0.0	-8.4
Burglary*	0.4	0.2	0.2	0.1	0.3	-206.2
Larceny, vehicle theft, or other property crimes	2.8	4.3	-1.5***	2.6	-2.1***	-45.0
Drug law violations	1.1	1.3	-0.2	0.8	-0.3	-27.6
Other personal crimes	2.4	2.7	-0.3	2.2	-0.5	-18.6
Other miscellaneous crimes***	5.2	6.3	-1.1	4.7	-1.6	-25.3
Percentage Convicted, Pled Guilty, or Adjudged Delinquent During the 30 Months After Random Assignment*	6.8	8.9	-2.0**	6.0	-2.9**	-32.8
Percentage Made a Deal or Plea-Bargained***	2.8	3.0	-0.1	2.4	-0.2	-7.3
All Charges for Which Convicted (Percentages)						
Murder or assault**	0.4	1.0	-0.6**	0.3	-0.9**	-72.8
Robbery	0.1	0.3	-0.2	0.0	-0.3	
Burglary**	0.2	0.1	0.1	0.0	0.2	-139.4
Larceny, vehicle theft, or other property crimes	2.0	2.8	-0.8*	1.9	-1.1*	-36.5
Drug law violations	0.9	0.9	0.1	0.6	0.1	14.1
Other personal crimes	1.1	1.5	-0.5	0.9	-0.7	-42.1
Other miscellaneous crimes*	2.9	3.8	-0.9*	2.6	-1.4*	-34.7

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TABLE F.6 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Ever Served in Jail for Convictions**	3.6	5.0	-1.4**	2.8	-2.0**	-41.3
Average Weeks in Jail for Convictions***	0.5	0.4	0.1	0.2	0.1	83.3
Percentage Ever Put on Probation or Parole	3.8	5.0	-1.2*	3.0	-1.7*	-35.6
Sample Size	**3,283**	**1,665**	**4,948**	**2,257**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the two gender groups.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE F.7

IMPACTS ON KEY CRIME OUTCOMES FOR MALE RESIDENTIAL DESIGNEES

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Quarter After Random Assignment						
1	3.7	5.3	-1.6***	2.6	-2.1***	-45.3
2***	4.1	5.6	-1.6***	3.5	-2.1***	-36.7
3*	5.3	6.9	-1.5**	4.6	-2.0**	-30.2
4	6.3	7.6	-1.3**	5.7	-1.7**	-22.9
5	5.9	5.7	0.2	5.2	0.3	6.8
6	3.7	4.2	-0.4	3.4	-0.6	-14.2
7	4.3	4.6	-0.2	4.5	-0.3	-6.6
8*	4.8	5.6	-0.8	4.7	-1.1	-19.2
9	5.4	5.7	-0.3	5.2	-0.4	-7.5
10*	6.5	7.9	-1.3**	6.1	-1.8**	-22.5
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Period						
All months**	32.0	38.1	-6.1***	29.8	-8.1***	-21.3
Months 1 to 12***	16.2	20.7	-4.5***	13.9	-6.0***	-30.1
Months 13 to 24	16.1	16.8	-0.7	15.2	-0.9	-5.6
Months 25 to 30	11.0	12.4	-1.5*	10.3	-1.9*	-15.7
Average Number of Times Ever Arrested	0.6	0.7	-0.1***	0.5	-0.1***	-20.1
All Charges for Which Arrested (Percentages)						
Murder or assault*	4.7	4.3	0.4	4.3	0.5	12.5
Robbery	2.4	2.7	-0.3	2.2	-0.5	-17.0
Burglary*	3.3	4.0	-0.7	2.8	-0.9	-24.2
Larceny, vehicle theft, or other property crimes	8.2	8.7	-0.5	7.3	-0.6	-8.0
Drug law violations	7.6	8.9	-1.3*	7.2	-1.8*	-19.7
Other personal crimes	5.1	5.7	-0.6	5.1	-0.8	-14.0
Other miscellaneous crimes***	17.3	22.5	-5.2***	15.4	-6.9***	-30.9
Percentage Convicted, Pled Guilty, or Adjudged Delinquent During the 30 Months After Random Assignment*	24.2	28.7	-4.5***	22.7	-6.0***	-20.9
Percentage Made a Deal or Plea-Bargained**	12.3	15.1	-2.8***	11.0	-3.7***	-25.2
All Charges for Which Convicted (Percentages)						
Murder or assault**	2.4	2.0	0.4	2.1	0.5	33.3
Robbery	1.7	2.0	-0.4	1.3	-0.5	-26.9
Burglary**	2.2	2.9	-0.7*	2.0	-1.0*	-31.9
Larceny, vehicle theft, or other property crimes	5.9	5.9	0.0	5.3	0.0	-0.7
Drug law violations	5.5	6.1	-0.6	5.0	-0.7	-12.7
Other personal crimes	3.1	3.3	-0.2	3.2	-0.3	-9.3
Other miscellaneous crimes**	11.9	14.9	-3.0***	10.8	-3.9***	-26.5

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TABLE F.7 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Ever Served in Jail for Convictions*	16.7	20.4	-3.7***	15.2	-4.9***	-24.3
Average Weeks in Jail for Convictions***	4.1	5.2	-1.1***	3.3	-1.5***	-31.1
Percentage Ever Put on Probation or Parole	14.2	16.0	-1.8**	12.9	-2.4**	-15.5
Sample Size	**3,633**	**2,592**	**6,225**	**2,712**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the two groups of residential designees.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE F.8

IMPACTS ON KEY CRIME OUTCOMES FOR FEMALE RESIDENTIAL DESIGNEES

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Quarter After Random Assignment						
1	1.2	2.3	-1.1***	0.7	-1.5***	-68.8
2***	1.7	1.4	0.3	1.6	0.5	43.6
3*	2.2	2.1	0.0	2.3	0.0	1.4
4	1.7	1.7	0.0	0.9	0.0	-1.6
5	2.0	2.2	-0.2	1.8	-0.3	-15.2
6	1.1	2.3	-1.2***	0.9	-1.6***	-65.5
7	1.2	1.9	-0.7	1.2	-0.9	-42.8
8	1.5	1.5	0.0	1.5	0.0	-2.3
9	1.3	2.6	-1.3***	1.2	-1.9***	-60.5
10*	2.2	2.1	0.0	1.8	0.1	3.1
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Period						
All months**	12.4	14.8	-2.4*	11.1	-3.3*	-22.8
Months 1 to 12***	5.8	6.3	-0.5	4.8	-0.7	-13.5
Months 13 to 24	5.3	6.4	-1.2	4.8	-1.6	-24.9
Months 25 to 30	3.4	4.5	-1.1*	3.0	-1.6*	-34.8
Average Number of Times Ever Arrested	0.2	0.2	-0.1***	0.1	-0.1***	-34.3
All Charges for Which Arrested (Percentages)						
Murder or assault*	1.5	2.4	-0.9*	1.6	-1.2*	-43.3
Robbery	0.3	0.3	0.0	0.1	0.0	-7.2
Burglary*	0.5	0.3	0.2	0.2	0.3	-239.6
Larceny, vehicle theft, or other property crimes	3.3	5.1	-1.8***	2.9	-2.5***	-46.6
Drug law violations	1.2	1.5	-0.3	0.8	-0.5	-35.9
Other personal crimes	2.8	3.0	-0.2	2.5	-0.3	-11.1
Other miscellaneous crimes***	5.8	6.8	-1.1	5.1	-1.5	-22.7
Percentage Convicted, Pled Guilty, or Adjudged Delinquent During the 30 Months After Random Assignment*	7.9	9.8	-1.9*	6.7	-2.6*	-28.3
Percentage Made a Deal or Plea-Bargained**	3.2	3.4	-0.3	2.6	-0.4	-13.3
All Charges for Which Convicted (Percentages)						
Murder or assault**	0.5	1.2	-0.8**	0.4	-1.0**	-73.6
Robbery	0.2	0.4	-0.3	0.0	-0.4	
Burglary**	0.3	0.2	0.1	0.1	0.2	-153.7
Larceny, vehicle theft, or other property crimes	2.3	3.2	-0.9	2.2	-1.2	-35.8
Drug law violations	1.1	1.0	0.1	0.6	0.1	16.4
Other personal crimes	1.3	1.7	-0.5	1.0	-0.7	-40.3
Other miscellaneous crimes**	3.3	4.1	-0.8	2.9	-1.1	-28.0

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TABLE F.8 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Ever Served in Jail for Convictions*	4.2	5.5	-1.3*	3.2	-1.8*	-35.8
Average Weeks in Jail for Convictions***	0.5	0.4	0.1	0.2	0.1	70.1
Percentage Ever Put on Probation or Parole	4.3	5.5	-1.2	3.2	-1.6	-33.6
Sample Size	**2,230**	**1,150**	**3,380**	**1,608**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the two groups of residential designees.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE F.9

IMPACTS ON KEY CRIME OUTCOMES FOR MALE NONRESIDENTIAL DESIGNEES

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Quarter After Random Assignment						
1	3.3	2.2	1.0	2.5	1.5	135.7
2	3.9	4.7	-0.8	4.0	-1.1	-22.1
3	3.1	3.8	-0.6	3.7	-0.9	-19.6
4	6.6	5.4	1.2	6.1	1.7	38.0
5	4.1	4.8	-0.7	3.3	-1.0	-23.4
6	4.9	2.3	2.5	5.5	3.5	180.5
7	4.1	4.2	-0.1	2.1	-0.2	-8.9
8*	2.5	4.9	-2.3	2.5	-3.3	-56.5
9	4.1	3.2	1.0	5.1	1.3	35.5
10	5.9	7.4	-1.5	6.6	-2.0	-23.6
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Period						
All months	29.9	29.3	0.5	28.9	0.8	2.7
Months 1 to 12	15.0	14.7	0.3	14.5	0.5	3.2
Months 13 to 24	13.8	14.3	-0.6	11.7	-0.8	-6.2
Months 25 to 30	9.2	9.2	0.0	10.6	0.1	0.5
Average Number of Times Ever Arrested	0.5	0.4	0.0	0.4	0.0	2.2
All Charges for Which Arrested (Percentages)						
Murder or assault	3.5	4.2	-0.7	5.0	-1.0	-17.2
Robbery	3.1	2.4	0.8	2.3	1.1	91.5
Burglary	3.3	3.2	0.1	4.0	0.1	3.2
Larceny, vehicle theft, or other property crimes	5.9	4.7	1.2	5.5	1.6	41.9
Drug law violations	7.4	7.1	0.3	7.7	0.5	6.7
Other personal crimes*	2.9	6.6	-3.7**	2.6	-5.2**	-66.5
Other miscellaneous crimes	17.3	14.9	2.4	16.4	3.3	25.5
Percentage Convicted, Pled Guilty, or Adjudged Delinquent During the 30 Months After Random Assignment	22.7	24.1	-1.4	20.8	-1.9	-8.4
Percentage Made a Deal or Plea-Bargained	12.4	13.2	-0.8	9.8	-1.1	-10.1
All Charges for Which Convicted (Percentages)						
Murder or assault	0.6	1.9	-1.3	0.8	-1.9	-69.6
Robbery	2.0	1.4	0.6	1.1	0.9	539.6
Burglary	2.1	2.8	-0.7	2.2	-1.0	-30.0
Larceny, vehicle theft, or other property crimes	4.5	3.8	0.7	3.7	1.0	34.5
Drug law violations	5.5	5.5	0.0	4.9	0.0	-0.9
Other personal crimes	3.5	4.6	-1.1	3.4	-1.6	-31.9
Other miscellaneous crimes	11.0	11.4	-0.4	10.4	-0.6	-5.4

TABLE F.9 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Ever Served in Jail for Convictions	14.7	17.6	-2.8	13.1	-4.0	-23.3
Average Weeks in Jail for Convictions	2.9	2.7	0.2	2.6	0.3	14.3
Percentage Ever Put on Probation or Parole	12.7	15.9	-3.2	12.5	-4.6	-26.7
Sample Size	**395**	**219**	**614**	**277**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the two groups of nonresidential designees.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE F.10

IMPACTS ON KEY CRIME OUTCOMES FOR FEMALE NONRESIDENTIAL DESIGNEES

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Quarter After Random Assignment						
1	0.4	1.1	-0.7*	0.0	-1.2*	
2	0.7	1.5	-0.8	0.8	-1.3	-62.6
3	1.1	1.8	-0.7	1.1	-1.0	-49.8
4	1.1	1.5	-0.3	1.4	-0.5	-27.9
5	0.9	1.6	-0.7	0.3	-1.2	-79.4
6	0.9	0.6	0.4	1.1	0.6	128.1
7	0.7	0.6	0.1	0.5	0.2	60.6
8*	1.0	0.5	0.5	1.2	0.8	200.1
9	0.9	1.2	-0.3	1.2	-0.5	-28.8
10	1.1	1.5	-0.3	1.4	-0.5	-26.5
Percentage Arrested or Charged with a Delinquency or Criminal Complaint, by Period						
All months	6.9	8.9	-2.0	6.8	-3.1	-31.6
Months 1 to 12	3.0	4.9	-1.9**	2.9	-3.1**	-51.9
Months 13 to 24	3.2	3.0	0.1	3.0	0.2	8.0
Months 25 to 30	2.0	2.5	-0.5	2.4	-0.8	-25.8
Average Number of Times Ever Arrested	0.1	0.1	0.0	0.1	-0.1	-40.1
All Charges for Which Arrested (Percentages)						
Murder or assault	0.8	0.5	0.3	1.2	0.4	58.6
Robbery	0.0	0.0	0.0	0.0	0.0	
Burglary	0.1	0.0	0.1	0.0	0.2	
Larceny, vehicle theft, or other property crimes	1.5	1.9	-0.3	1.4	-0.5	-27.6
Drug law violations	0.7	0.5	0.2	0.6	0.3	105.8
Other personal crimes*	1.1	1.9	-0.7	1.1	-1.2	-51.8
Other miscellaneous crimes	3.4	4.5	-1.2	3.3	-1.9	-36.3
Percentage Convicted, Pled Guilty, or Adjudged Delinquent During the 30 Months After Random Assignment	3.7	6.1	-2.4**	3.4	-3.9**	-53.5
Percentage Made a Deal or Plea-Bargained	1.8	1.4	0.4	1.7	0.6	55.6
All Charges for Which Convicted (Percentages)						
Murder or assault	0.2	0.4	-0.2	0.2	-0.3	-61.5
Robbery	0.0	0.0	0.0	0.0	0.0	
Burglary	0.1	0.0	0.1	0.0	0.2	
Larceny, vehicle theft, or other property crimes	1.1	1.5	-0.4	0.9	-0.6	-40.6
Drug law violations	0.6	0.5	0.0	0.5	0.0	5.6
Other personal crimes	0.6	0.9	-0.4	0.6	-0.6	-50.1
Other miscellaneous crimes	1.4	2.8	-1.4*	1.4	-2.2*	-61.4

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TABLE F.10 *(continued)*

Outcome Measure[a]	Program Group	Control Group	Estimated Impact per Eligible Applicant[b]	Program Group Job Corps Participants	Estimated Impact per Participant[c]	Percentage Gain from Participation[d]
Percentage Ever Served in Jail for Convictions	1.8	3.4	-1.6**	1.4	-2.6**	-65.9
Average Weeks in Jail for Convictions	0.3	0.2	0.1	0.2	0.2	167.0
Percentage Ever Put on Probation or Parole	2.4	3.5	-1.1	2.4	-1.8	-42.9
Sample Size	**1,053**	**515**	**1,568**	**649**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Asterisks next to variable names indicate significance levels for statistical tests of differences in impacts across the two groups of nonresidential designees.

[b] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[c] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[d] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE F.11

IMPACTS ON KEY CRIME OUTCOMES, BY THE PRESENCE OF CHILDREN, HIGH SCHOOL CREDENTIAL STATUS, ARREST HISTORY, RACE AND ETHNICITY, AND APPLICATION DATE

	Percentage Ever Arrested		Percentage Arrested for Serious Crimes (Assault, Murder, Robbery, or Burglary)		Percentage Ever Convicted, Pled Guilty, or Adjudged Delinquent		Percentage Ever Incarcerated for Convictions		Average Weeks Incarcerated for Convictions	
Subgroup	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]
Presence of Children at Random Assignment for Females										
Had children	11.7	-2.6	1.8	-0.3	8.0	-3.8*	4.9	-3.1*	0.4	0.5
Had no children	14.1	-3.6**	2.5	-0.7	9.3	-2.8**	5.1	-1.7*	0.4	-0.1
(P-value)[b]		.634		.716		.809		.574		.340
Educational Attainment at Random Assignment										
Had high school diploma or GED	17.5	-6.4***	2.9	-0.4	11.8	-3.9**	7.4	-2.1	1.0	0.2
Had no high school credential	31.0	-6.1***	7.9	-1.1	23.2	-5.1***	16.2	-4.4***	3.8	-1.1***
(P-value)[b]		.905		.531		.418		.121		.033**
Arrest History at Random Assignment										
Never arrested	21.9	-6.0***	5.2	-1.3**	15.4	-4.6***	10.0	-3.8***	2.0	-0.7**
Ever arrested for nonserious crimes only	40.3	-6.2**	8.2	-0.8	30.2	-3.0	20.7	-2.2	4.5	-0.1
Ever arrested for serious crimes[c]	48.0	-2.2	16.3	3.9	38.3	-4.3	30.4	-2.3	6.9	-1.1
(P-value)[b]		.818		.548		.827		.776		.800
Race and Ethnicity										
White non-Hispanic	31.9	-7.8***	7.5	-1.6	26.4	-6.9***	16.7	-4.5**	2.9	-0.7
Black non-Hispanic	27.4	-5.9***	6.7	-0.4	18.9	-4.6***	13.5	-3.9***	3.3	-0.6
Hispanic	22.3	-3.5	6.1	-1.3	15.3	-1.7	11.0	-1.3	3.1	-1.8**
Other[d]	28.3	-8.7**	5.6	-1.1	22.0	-8.1**	15.5	-7.7**	2.8	-0.8
(P-value)[b]		.570		.865		.291		.324		.598

TABLE F.11 *(continued)*

	Percentage Ever Arrested		Percentage Arrested for Serious Crimes (Assault, Murder, Robbery, or Burglary)		Percentage Ever Convicted, Pled Guilty, or Adjudged Delinquent		Percentage Ever Incarcerated for Convictions		Average Weeks Incarcerated for Convictions	
Subgroup	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]	Control Group	Estimated Impact per Participant[a]
Job Corps Application Date and the New Job Corps Policies										
Prior to 3/1/95 (before ZT)	26.3	-3.6	6.7	0.3	18.8	-2.0	12.4	-0.5	2.9	-0.4
On or after 3/1/95 (after ZT)	28.2	-6.8***	6.7	-1.2*	20.9	-5.6***	14.5	-4.8***	3.2	-0.9**
(P-value)[b]		.219		.349		.126		.034**		.458

SOURCE: Baseline, and 12-month and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per program participant are measured as the difference between the weighted means for program and control group members divided by the proportion of eligible applicants in the program group who enrolled in Job Corps.

[b] Figures are p-values from tests to test jointly for differences in program impacts across levels of the subgroup.

[c] Serious crimes include aggravated assault, murder, robbery, and burglary.

[d] This group includes American Indians, Alaskan Natives, Asians, and Pacific Islanders.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

APPENDIX G

SUPPLEMENTARY TABLES TO CHAPTER VII: IMPACTS ON TOBACCO, ALCOHOL, AND ILLEGAL DRUG USE

TABLE G.1

FREQUENCY OF TOBACCO, ALCOHOL, AND ILLEGAL DRUG USE IN THE 30 DAYS PRIOR TO THE 30-MONTH INTERVIEW

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
How Often Smoked Cigarettes						
Not at all	47.2	48.0	-0.8	46.8	-1.1	-2.2
Less than once a week	3.1	2.9	0.2	3.0	0.2	9.1
1 to 2 days per week	2.9	3.4	-0.5	2.9	-0.6	-18.1
3 or more days per week	46.9	45.8	1.1	47.3	1.5	3.2
How Often Consumed Alcoholic Beverages						
Not at all	66.6	66.6	-0.1	66.6	-0.1	-0.2
Less than once a week	17.6	17.3	0.3	17.1	0.4	2.2
1 to 2 days per week	11.0	11.3	-0.2	11.3	-0.3	-2.7
3 or more days per week	4.8	4.8	0.1	5.0	0.1	1.4
How Often Used Marijuana or Hashish						
Not at all	91.8	91.6	0.2	91.4	0.3	0.3
Less than once a week	2.1	2.3	-0.2	2.2	-0.3	-13.0
1 to 2 days per week	1.8	1.6	0.3	1.9	0.4	25.1
3 or more days per week	4.2	4.5	-0.3	4.4	-0.4	-7.7
How Often Snorted Cocaine Powder						
Not at all	99.7	99.7	0.1	99.7	0.1	0.1
Less than once a week	0.1	0.3	-0.1	0.1	-0.2	-56.6
1 to 2 days per week	0.1	0.0	0.0	0.0	0.0	91.4
3 or more days per week	0.1	0.0	0.1	0.1	0.1	303.6
How Often Smoked Crack Cocaine or Freebased						
Not at all	99.9	99.9	0.0	99.9	0.0	0.0
Less than once a week	0.1	0.1	0.0	0.0	0.0	-54.1
1 to 2 days per week	0.0	0.0	0.0	0.0	0.0	-41.8
3 or more days per week	0.0	0.0	0.0	0.0	0.0	113.2
How Often Used Hallucinogenic Drugs						
Not at all	99.4	99.4	0.0	99.3	-0.1	-0.1
Less than once a week	0.4	0.4	0.0	0.4	0.0	-8.1
1 to 2 days per week	0.1	0.1	0.0	0.2	0.0	17.3
3 or more days per week	0.1	0.0	0.1	0.0	0.1	-216.6
How Often Used Heroin, Opium, Methadone, or Downers						
Not at all	99.9	99.8	0.1	99.9	0.1	0.1
Less than once a week	0.1	0.1	0.0	0.0	-0.1	-57.8
1 to 2 days per week	0.0	0.1	0.0	0.0	0.0	-48.7
3 or more days per week	0.0	0.0	0.0	0.0	0.0	-26.0
How Often Used Speed, Uppers, or Methamphetamines						
Not at all	99.5	99.4	0.1	99.4	0.1	0.1
Less than once a week	0.3	0.5	-0.2	0.4	-0.2	-37.1
1 to 2 days per week	0.1	0.1	0.0	0.1	0.1	224.1
3 or more days per week	0.1	0.0	0.0	0.1	0.1	156.4

TABLE G.1 *(continued)*

Outcome Measure	Program Group	Control Group	Estimated Impact per Eligible Applicant[a]	Program Group Job Corps Participants	Estimated Impact per Participant[b]	Percentage Gain from Participation[c]
How Often Used Other Drugs						
Not at all	99.9	99.9	0.0	99.8	-0.1	-0.1
Less than once a week	0.1	0.1	0.0	0.1	0.0	49.1
1 to 2 days per week	0.0	0.0	0.0	0.0	0.0	869.7
3 or more days per week	0.0	0.0	0.0	0.0	0.0	-17.2
How Often Shot or Injected Drugs with a Needle or Syringe						
Not at all	99.9	99.9	0.0	99.9	0.0	0.0
Less than once a week	0.0	0.0	0.0	0.0	0.0	-14.8
1 to 2 days per week	0.0	0.0	0.0	0.0	0.0	0.0
3 or more days per week	0.0	0.0	0.0	0.0	0.0	-12.5
Sample Size	**7,311**	**4,476**	**11,787**	**5,246**		

SOURCE: Baseline, 12-month, and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of the estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per eligible applicant are measured as the difference between the weighted means for program and control group members.

[b] Estimated impacts per Job Corps participant are measured as the estimated impacts per eligible applicant divided by the proportion of program group members who enrolled in Job Corps. Standard errors for these estimates were inflated to account for the estimation error in the Job Corps participation rate.

[c] The percentage gain from participation is measured as the estimated impact per participant divided by the difference between the mean outcome for participants and the estimated impact per participant.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE G.2

IMPACTS ON KEY ALCOHOL AND ILLEGAL DRUG USE OUTCOMES IN THE 30 DAYS PRIOR TO THE 12-MONTH INTERVIEW AND HEALTH STATUS AT 12 MONTHS, BY SUBGROUP

	Percentage Consumed Alcoholic Beverages		Percentage Used Marijuana or Hashish		Percentage Used Hard Drugs[a]		Percentage Used Marijuana/Hashish or Hard Drugs[a]		Percentage with Fair or Poor Health	
Subgroup	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]
Age at Application										
16 and 17	25.2	-1.0	11.6	1.3	2.0	0.3	12.2	1.4	16.3	-1.6
18 and 19	28.9	-3.1	7.7	1.2	2.1	-0.5	8.6	0.3	18.1	-3.0
20 to 24	37.9	-6.2**	4.5	1.8	1.1	-0.3	5.1	1.3	19.8	-8.3***
(P-value)[c]		.292		.966		.656		.792		.036**
Gender										
Males	34.0	-1.1	10.2	2.4**	2.3	0.1	11.2	1.8*	16.7	-5.0***
Females	23.6	-5.7***	5.9	-0.4	1.1	-0.4	6.3	-0.4	19.3	-1.6
(P-value)[c]		.065*		.047**		.505		.129		.070*
Residential Designees										
Males	34.6	-1.8	10.6	2.2**	2.3	0.2	11.6	1.7	16.9	-5.1***
Females	23.7	-4.6**	6.7	-1.0	1.2	-0.4	7.0	-0.9	19.8	-2.0
(P-value)[c]		.322		.049**		.442		.126		.159
Nonresidential Designees										
Males	25.8	9.2*	5.1	5.5*	1.4	-1.6*	6.5	3.6	14.9	-3.9
Females	23.4	-9.5	3.6	1.9	0.7	-0.3	4.1	1.4	17.9	0.0
(P-value)[c]		.004***		.259		.225		.506		.418
Presence of Children at Random Assignment for Females										
Had children	31.0	-6.7**	5.4	2.3	1.7	-1.0	6.5	0.9	19.0	-3.8
Had no children	29.6	-2.2*	9.2	1.2	1.8	0.1	9.9	1.0	17.6	-3.7***
(P-value)[c]		.231		.645		.218		.915		.862
Educational Attainment at Random Assignment										
Had high school diploma or GED	35.5	-6.6**	6.0	-1.6	1.9	-1.6**	6.9	-2.5*	16.6	-5.1**
Had no high school credential	28.1	-1.7	9.3	2.1**	1.8	0.3	10.0	1.9**	18.1	-3.3***
(P-value)[c]		.124		.016**		.013**		.007***		.518

TABLE G.2 *(continued)*

	Percentage Consumed Alcoholic Beverages		Percentage Used Marijuana or Hashish		Percentage Used Hard Drugs[a]		Percentage Used Marijuana/Hashish or Hard Drugs[a]		Percentage with Fair or Poor Health	
Subgroup	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]
Arrest History at Random Assignment										
Never arrested	27.3	-2.8**	6.9	1.3	1.5	-0.4	7.5	1.0	17.2	-3.4***
Ever arrested for nonserious crimes only	38.1	-3.3	14.1	0.5	1.9	2.1*	15.0	-0.4	19.8	-5.6**
Ever arrested for serious crimes[c]	36.4	-0.9	10.2	6.5	5.2	-3.1	13.4	3.0	17.2	3.3
(P-value)[c]		.944		.456		.046**		.752		.281
Race and Ethnicity										
White non-Hispanic	36.6	-2.5	9.6	0.6	3.8	-0.6	10.9	-0.2	19.8	-6.3***
Black non-Hispanic	25.5	-1.5	8.3	1.9*	0.5	-0.2	8.6	1.6	17.3	-3.8***
Hispanic	31.5	-6.1**	7.6	-0.7	2.0	-0.1	8.3	-1.3	15.8	-0.1
Other[d]	28.9	-6.3	8.0	4.5	2.1	2.0	9.1	5.1*	18.3	-2.5
(P-value)[c]		.455		.355		.577		.212		.237
Job Corps Application Date and the New Job Corps Policies										
Prior to 3/1/95 (before ZT)	29.9	-1.2	7.7	4.2**	1.8	0.7	8.6	3.6**	18.0	-3.4
On or after 3/1/95 (after ZT)	29.7	-3.3**	8.7	0.5	1.8	-0.3	9.4	0.2	17.7	-2.8***
(P-value)[c]		.441		.050*		.252		.087*		.846

SOURCE: Baseline, and 12-month and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of these estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Hard drugs include cocaine powder, crack, speed/uppers/methamphetamines, hallucinogens, and heroin/opium/methadone/downers.

[b] Estimated impacts per program participant are measured as the difference between the weighted means for program and control group members divided by the proportion of eligible applicants in the program group who enrolled in Job Corps.

[c] Figures are p-values from tests to jointly test for differences in program impacts across levels of the subgroup.

[d] This group includes American Indians, Alaskan Natives, Asians, and Pacific Islanders.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

TABLE G.3

IMPACTS ON KEY ALCOHOL AND ILLEGAL DRUG USE OUTCOMES IN THE 30 DAYS PRIOR TO THE 30-MONTH INTERVIEW AND HEALTH STATUS AT 30 MONTHS, BY SUBGROUP

	Percentage Consumed Alcoholic Beverages		Percentage Used Marijuana or Hashish		Percentage Used Hard Drugs[a]		Percentage Used Marijuana/Hashish or Hard Drugs[a]		Percentage with Fair or Poor Health	
Subgroup	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]
Age at Application										
16 and 17	29.6	1.4	11.2	0.4	2.0	0.3	11.6	0.5	16.7	-0.9
18 and 19	34.9	0.8	6.8	0.5	2.0	-0.4	7.1	0.8	16.3	-0.9
20 to 24	37.3	-3.0	6.0	-2.5**	1.1	-0.2	6.2	-2.2*	18.1	-5.7***
(P-value)[c]		.338		.135		.704		.169		.131
Gender										
Males	38.7	1.8	10.6	0.2	2.2	0.1	10.8	0.7	15.5	-2.9***
Females	25.5	-2.1	5.1	-1.0	1.1	-0.4	5.6	-1.2	19.0	-0.9
(P-value)[c]		.105		.361		.451		.170		.258
Residential Designees										
Males	39.1	1.4	11.2	-0.3	2.2	0.2	11.4	0.2	15.7	-3.4***
Females	26.0	-1.6	5.9	-1.5	1.2	-0.4	6.5	-1.7	19.3	-1.2
(P-value)[c]		.262		.414		.397		.234		.291
Nonresidential Designees										
Males	33.2	6.7	4.0	6.7**	1.4	-1.6*	4.0	7.1**	13.7	3.8
Females	23.8	-4.0	2.5	0.9	0.7	-0.3	2.8	0.5	18.1	0.3
(P-value)[c]		.104		.060*		.232		.039**		.488
Presence of Children at Random Assignment for Females										
Had children	30.6	-2.4	5.4	-1.7	1.7	-1.0	5.7	-1.4	21.0	-5.5**
Had no children	29.6	-2.2*	9.2	1.2	1.8	0.1	9.9	1.0	15.9	-1.2
(P-value)[c]		.382		.385		.205		.438		.154
Educational Attainment at Random Assignment										
Had high school diploma or GED	37.4	-2.6	5.6	-1.8	1.8	-1.5**	6.2	-2.2*	15.0	-2.2
Had no high school credential	32.3	0.9	9.3	-0.1	1.7	0.3	9.5	0.3	17.6	-2.2**
(P-value)[c]		.244		.242		.012**		.109		.905

TABLE G.3 *(continued)*

	Percentage Consumed Alcoholic Beverages		Percentage Used Marijuana or Hashish		Percentage Used Hard Drugs[a]		Percentage Used Marijuana/Hashish or Hard Drugs[a]		Percentage with Fair or Poor Health	
Subgroup	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]
Arrest History at Random Assignment										
Never arrested	31.8	-1.2	7.1	-0.5	1.4	-0.4	7.4	-0.6	16.3	-1.2
Ever arrested for nonserious crimes only	37.9	5.3*	12.4	-0.5	1.8	2.0**	12.9	0.0	17.6	-3.9*
Ever arrested for serious crimes[c]	30.8	8.4	10.1	4.0	4.9	-2.7	10.1	6.1	17.2	-1.3
(P-value)[c]		.062*		.537		.045**		.282		.591
Race and Ethnicity										
White non-Hispanic	41.0	1.4	9.0	-1.6	3.7	-0.6	9.8	-1.6	18.6	-4.8**
Black non-Hispanic	29.2	-1.0	8.4	0.5	0.5	-0.2	8.5	0.6	16.1	-1.3
Hispanic	32.2	1.8	6.4	0.0	1.9	-0.1	6.6	0.4	15.6	0.3
Other[d]	35.6	-2.8	10.7	-2.1	2.0	2.0	11.0	-1.2	19.4	-3.4
(P-value)[c]		.688		.574		.571		.601		.303
Job Corps Application Date and the New Job Corps Policies										
Prior to 3/1/95 (before ZT)	34.8	1.2	6.4	3.6**	1.7	0.7	6.8	3.7**	15.5	-1.0
On or after 3/1/95 (after ZT)	32.9	-0.2	9.0	-1.4	1.7	-0.3	9.2	-1.2	17.3	-2.4**
(P-value)[c]		.639		.004***		.261		.007***		.517

SOURCE: Baseline, and 12-month and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of these estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Hard drugs include cocaine powder, crack, speed/uppers/methamphetamines, hallucinogens, and heroin/opium/methadone/downers.

[b] Estimated impacts per program participant are measured as the difference between the weighted means for program and control group members divided by the proportion of eligible applicants in the program group who enrolled in Job Corps.

[c] Figures are p-values from tests to jointly test for differences in program impacts across levels of the subgroup.

[d] This group includes American Indians, Alaskan Natives, Asians, and Pacific Islanders.

*Significantly different from zero at the .10 level, two-tailed test.
**Significantly different from zero at the .05 level, two-tailed test.
***Significantly different from zero at the .01 level, two-tailed test.

APPENDIX H

SUPPLEMENTARY TABLES TO CHAPTER VII: IMPACTS ON FAMILY FORMATION AND MOBILITY

TABLE H.1

IMPACTS ON KEY FERTILITY, LIVING ARRANGEMENT, MARITAL STATUS, AND MOBILITY OUTCOMES, BY SUBGROUP

	Percentage Had New Children		Percentage of Parents Living with All Their Children at 30 Months		Percentage Living with No Adult at 30 Months		Percentage Living with a Partner (Married or Unmarried) at 30 Months		Percentage with Zip Codes Within 10 Miles of Each Other at Program Application and 30 Months	
Subgroup	Control Group	Estimated Impact per Participant^b	Control Group	Estimated Impact per Participant^b	Control Group	Estimated Impact per Participant^b	Control Group	Estimated Impact per Participant^b	Control Group	Estimated Impact per Participant^b
Age at Application										
16 and 17	24.6	-0.3	67.1	0.4	9.2	1.2	2.6	-0.3	74.6	-1.1
18 and 19	27.1	-0.7	71.0	-2.0	15.0	-1.2	7.4	-1.1	73.5	-4.2*
20 to 24	22.0	0.2	67.4	-0.6	17.8	4.3**	12.6	-1.5	74.7	-4.0**
(P-value)^b		.953		.889		.137		.753		.354
Residential Designees										
Males	19.9	-1.8	39.4	-4.3	7.6	1.5	5.5	-1.5**	72.9	-3.6**
Females without children at baseline	29.6	2.3	95.9	-0.9	14.1	1.3	5.1	-0.1	72.5	-3.4
Females with children at baseline	34.3	9.5	80.9	-1.5	33.3	2.9	14.3	-6.2	73.5	-0.1
(P-value)^b		.090*		.664		.975		.313		.808
Nonresidential Designees										
Males	23.5	-2.7	43.9	-2.8	6.3	0.8	10.5	6.0	79.4	-0.1
Females without children at baseline	37.5	-19.2***	95.0	4.9	19.2	-4.3	9.4	-1.9	82.4	-7.1
Females with children at baseline	34.0	3.0	95.5	-3.2	45.1	-2.0	15.5	3.9	86.2	-4.5
(P-value)^b		.022**		.241		.685		.304		.662
Educational Attainment at Random Assignment										
Had high school diploma or GED	22.0	1.4	76.1	-4.4	15.9	3.5	9.5	-0.6	70.8	-4.1
Had no high school credential	25.7	-0.8	66.0	0.6	12.5	0.7	6.0	-0.8	75.3	-3.2**
(P-value)^b		.402		.298		.258		.871		.821
Arrest History at Random Assignment										
Never arrested	24.0	0.6	74.1	-2.1	13.5	2.0*	5.9	0.3	74.5	-2.6**
Ever arrested for nonserious crimes only	26.9	-4.4	57.5	1.7	11.5	0.6	7.5	-3.4**	73.4	-2.6
Ever arrested for serious crimes	22.7	3.7	50.7	0.1	15.7	-5.3	5.6	1.6	72.2	-2.7
(P-value)^b		.195		.783		.222		.069*		.999

TABLE H.1 *(continued)*

Subgroup	Percentage Had New Children		Percentage of Parents Living with All Their Children at 30 Months		Percentage Living with No Adult at 30 Months		Percentage Living with a Partner (Married or Unmarried) at 30 Months		Percentage with Zip Codes Within 10 Miles of Each Other at Program Application and 30 Months	
	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]	Control Group	Estimated Impact per Participant[b]
Race and Ethnicity										
White non-Hispanic	21.8	-1.7	66.2	4.3	13.7	-0.9	9.0	-0.9	62.3	-3.9
Black non-Hispanic	26.0	0.4	66.5	-1.5	15.6	2.3*	4.2	-0.6	80.8	-1.3
Hispanic	26.0	-0.5	73.6	-1.5	8.7	2.5	9.3	0.1	76.8	-5.5**
Other[c]	24.0	1.3	76.5	-7.3	9.4	-2.0	9.2	-3.1	68.8	-7.1
(P-value)[b]		.857		.547		.258		.764		.375
Job Corps Application Date and the New Job Corps Policies										
Prior to 3/1/95 (before ZT)	26.0	-4.2*	64.9	0.5	14.2	1.2	7.2	-1.9	75.1	-7.1***
On or after 3/1/95 (after ZT)	24.4	0.7	69.5	-1.2	13.1	1.2	6.7	-0.4	74.0	-2.4*
(P-value)[b]		.071*		-731		.987		.340		.110

SOURCE: Baseline, and 12-month and 30-month follow-up interview data for those who completed 30-month interviews.

NOTE: All estimates were calculated using sample weights to account for the sample and survey designs and interview nonresponse. Standard errors of these estimates account for design effects due to unequal weighting of the data and clustering caused by the selection of areas slated for in-person interviewing at baseline.

[a] Estimated impacts per program participant are measured as the difference between the weighted means for program and control group members divided by the proportion of eligible applicants in the program group who enrolled in Job Corps.

[b] Figures are p-values from tests to jointly test for differences in program impacts across levels of the subgroup.

[c] This group includes American Indians, Alaskan Natives, Asians, and Pacific Islanders.

*Significantly different from zero at the .10 level, two-tailed test.
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***Significantly different from zero at the .01 level, two-tailed test.

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